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Agricultural.

SUNDY ITEMS.

The supervisor of my township kindly furnished me some facts regarding the amount of wheat growing on the ground which I required, as the basis of some estimates as to the amount to be harvested as compared with average years. These figures cover three groups of farms in different parts of the town. The first group of 15 farms aggregates 1,400 acres, and has 92 acres sown to wheat. This is 6 1/2% to the 100. The next group has 20 farms reported, aggregating 2,197 acres, and 263 in wheat. On these farms there are 12 acres in the 100 growing wheat this year. On the next 20 farms there are 2,111 acres in all, and only 123 in wheat; or a little less than six acres in every 100 sown to wheat. These 55 farms, out of the 197 in the township, represent fairly the extent of wheat growing here. This eight acres in every 100 acres is quite a large reduction from former years. As near as I can gather from the figures in the "Farm Statistics" sent out by the Secretary of State, the last report makes a little more than 10 to the 100. Causes which affect like results in one portion of a State or country, carry that influence to all engaged in that industry; so that it is perhaps safe to conclude that less wheat was sown last year than in average years. Wheat is looking well, and promises a good yield. But little was winter killed, except on heavy clay land, or in very exposed situations, where the winds swept off the snow. If the yield should be up to the highest average for the township, there would be but about 135 bushels to the farm, which, after the home supply for bread and seed is taken out, will leave little to go into the general markets. These are home figures which any one can make for his locality, and they but confirm the general report from the Secretary of State, that Michigan cannot add much to the surplus after supplying the home trade.

WOOL.

As I write loads of wool are going to town to be sold. There is a good deal of dissatisfaction among the growers at the price, and at the wretched system of purchasing wool generally. My neighbor last year sheared his grade flock before washing, and it sold for 22 cents, while the market for washed wool was 30 to 34c, with frequent sales at 35c. It is safe to say he sacrificed 10 cents per pound to washing, for this year he washed and sheared the same flock, and they secured the same average--about 7 1/2 lbs. This neighbor is a close observer, and always makes fair and safe estimates, and his verdict is, that sheep shorn before warm days and hot sun, and before being turned to grass, have less oil and less waste to the fleece, than when left 30 days longer, washed, and allowed to stand ten days to two weeks afterward, to accumulate oil, crust and dust, and divers other dirty substances to add to the weight of the fleece. And yet there stands between him and the manufacturer a system of shrinkage that compels him to manipulate the fleece in a certain way, or cheated out of ten cents per pound. Farmers generally, like my neighbor, have sense and judgment enough to determine the difference in the real shrinkage of fleeces, in their own flocks, after having tried both plans, without taking the dictum of the wool buyer as authority, and such feel cheated and misused when confronted with the necessity of washing sheep to gratify a whim that has no excuse at present for its existence. Wool buyers pride themselves upon their experience in detecting unwashed fleeces, but they fall as often as they succeed, which shows that the real difference is not so great as they make it appear by their values, when their astute noses has been sufficient to decide correctly. Buyers do not presume to buy unwashed wool on its merits, and they do not apply a test that can in any way determine its value. They hold a fleece to their nose in a test case and call upon member to say whether it shall be worth ten cents per lb.

more or less. It is beyond my power to imagine how the natural odor of a sheep can injure the fibre, or become a serious obstacle in the process of manufacturing the fleece. There is certainly no good ground for continuing the practice of washing sheep. It really means nothing as a standard of value for the article. The degree of thoroughness which each wool grower shall exercise while washing his flock is too varied to think of uniformity, and is a constant promoter of trickery and deceit. The wool clip of our State can never become uniform in character until it is sheared without washing, and before the flock is turned to pasture. But every pioneer in this attempt at reform must submit to wrong and injustice, and he is compelled to return to the unnatural and useless methods adopted long ago. If all wool were sheared early the eye could be called into the defective business, if that were necessary. There would be fleeces with burrs or chaff in them which could be felt sense without calling to their aid a third sense, so uncertain as a business factor. There would be heavy and light fleeces as at present. There would doubtless yet be some soggy, gummy fleeces, over which rival interests would wrangle, but if there was an attempt at jockeying there would be some apparent basis for it without selling or buying under a decree that all wool shall small to an odor pattern.

AFTER THE DRESSED BEEF MONOPOLY.

A goodly number of farmers gathered in Jackson, last week Saturday, to discuss the policy of allowing the cattle markets in the State to be broken up in the interests of the Chicago dressed beef syndicate, or to devise some method by which their monopoly of the business could be prevented. We give a summary of the proceedings from the Jackson daily papers. Hon. J. C. Sharp was made chairman of the meeting. Some Detroit butchers were also present, and gave their views of the situation. In brief they were that the success of the Chicago beef monopoly in this State, means a death blow to the stock raisers of Michigan. With their local markets destroyed, the stock raisers must compete with the free feeders of the vast prairies. This is an impossibility, and stock raising for or a profit, will become a thing of the past; this, too, means a serious blow at the grain markets of the State, and the placing of our farmers more completely at the mercy of the stock-brokers and grain exchanges, an end not at all desired--and the farmers of Michigan cannot afford this. Figures were given to show that in the northern towns of the State the policy of the Chicago people had been to freeze out local dealers and then raise the price of meats to consumers.

Mr. George Beck, of this city, brought up the question of the meat furnished to the State Prison, and said he had been informed that it was Chicago dressed meat. Mr. Sharp said that at the time the contract was let for the furnishing of beef, he had secured the insertion of a clause requiring that the cattle must be fattened and slaughtered in Michigan. He did not know if this was being violated, but he hardly thought the prison officials would allow it to be done. It was something that should be investigated. He said there must be an organization of some sort so that the farmers could make their influence felt.

Col. DeLand said it was the old question of how the producer could sell for the most and the consumer buy for the least. So far as Chicago beef was concerned he would say that when Chicago beef was first introduced into Saginaw, the price of beef fell at once six to ten cents per pound. Few farmers were willing to sell live stock in Jackson, as the dealers combined to keep the price so low that there was no money in it for the farmers. The majority sold to dealers who ship it to Toledo and the west, and who pay better prices than the city dealers. He said if any organization could be formed that would benefit the producer he thought that every farmer should join for his own protection, but not because some butcher asked him to. He said that if the inspectors at the prison had let the beef contract at a rate one-eighth of a cent per pound higher, just to get Michigan beef, every taxpayer would kick.

Mr. Beck said that at the time of the fall in the price of beef in Saginaw spoken of by Col. DeLand, cattle had fallen off equally. Mr. Clark asked what could be done about it. He hoped some one would tell him a plan whereby this Chicago dressed beef monopoly and every other monopoly might be broken down.

Mr. Beck said the plan proposed was to circulate petitions asking the legislature to pass a law providing for the appointment, in all cities and villages of the State having a population of 5,000 or over, of a beef inspector; and requiring that all beef cattle intended for human food be inspected on the hoof and alive, before being killed or offered for sale as meat; and making proper tests of purity and healthfulness; and penalties for violating the said law or offering for sale without such inspection.

A. N. Howe then moved that those present proceed to effect an organization.

Col. Hodge said that the people are undoubtedly in the grasp of big fairs, not only in beef, but in coal, oil and other necessities. He favored the formation of an organization that would work against the selling of impure food. Those who are the leaders in the Chicago beef monopoly are

nothing for the health of consumers, only how much money they could make. He was in favor of an organization that would make war against all monopolies and trusts in the country. The influence of individuals would be nothing, but by uniting together the farmers might carry the movement, which is one that ought to succeed.

Col. DeLand asked what would be the good of organization to secure the passage of the bill above spoken of? If the monopolists are so powerful as stated, one county or one State could not fight against them. The only way monopoly ever was effectually broken was through competition among the monopolists themselves. The men we send to the legislature may think as we do before election, but after they get there they act as they like.

Col. Hodge said this is not a local matter, this movement was arousing attention all through the west and even in the east. The question was whether the mass of the people can control the monopolists.

Mr. Brownell, of Detroit, said Jackson county was not alone in this. These petitions are coming in signed from all over the State. He said one of the big four came to him and said that if the committee would withdraw this bill he would promise that Chicago beef should not be sold in Detroit, but this was refused.

Mr. Sharp believed it possible to influence the legislature to a degree sufficient to secure the passage of such a bill, and good will come from trying. If the boards of managers of other State institutions would adopt the same policy as that at the prison the benefit would be greatly extended. He said Col. DeLand used the very same arguments that were used against the laws to regulate railroad charges. If we commence an agitation founded on truth and justice we shall succeed, for right always wins.

On motion of Col. H. C. Hodge, Hon. J. C. Sharp was elected president of the association, and Hon. Frank Maynard, secretary. Mr. Maynard said the farmers alone are not interested. The drain of money from the State was large, and not a dollar of it came back, and this is a matter that interests everybody in the State.

It was moved that it be called the "Jackson County Protective Association," which prevailed.

The President and Secretary were appointed to frame a constitution and by-laws to be reported at a future session.

The meeting adjourned to August 25, at one o'clock. Thirty-two farmers joined the association.

ENSILAGE AND SILOS.

The interest in the preservation of green fodder in the silo as a food for live stock is increasing rapidly, and in Michigan this season many tons of ensilage will be stored away by farmers who never before attempted anything of the kind. The experiments made at the State Agricultural College for the past five years have proved very satisfactory as to its value, and this experience is endorsed by other experiments both in the United States and Great Britain. The system seems equally valuable in all the States, so that its success is not limited by climatic conditions. Of course where corn can be successfully grown its advantages are greater than where this crop cannot be grown; but as clover, rye and oats have been used with advantage, it will be seen how wide a range of usefulness the silo has. The dairy farmer, the stock breeder and the feeder can trust to ensilage as a cheap and wholesome food, with perfect security. In the nature of things ensilage cannot be relied upon as whole ration for stock. It must be supplemented with grain and hay as roots are, in whose place in the economy of the farm it can be used with advantage to both the stock and the feeder.

The results of experiments lead us to believe that in nearly all portions of Michigan corn will be relied upon to fill the silo. A greater bulk can be grown per acre than of any other crop, and certainly in nutritive value it ranks as high as any other yet tested. The corn should be sown in drills, and it should be allowed to ear out well and partly mature before cutting, some preferring to have it begin to glaze. When cut it should be allowed to lie on the ground for a day until fairly wilted, then drawn or passed through the cutting machine and thence into the silo.

The silo is simply an air tight compartment built of any material, but preferably lumber, and may be in part a barn or a building erected for the special purpose. We have seen the bay of a barn utilized for the purpose by simply doubling planking it, and using tarred paper between the planks walls. There should be doors left at intervals, so as to render it an easy matter to get into the silo or get the ensilage out as required. When filled the silo should be well covered with planks, and then weighted down. There should be a pressure of from 100 to 125 lbs. to the square foot, which may be secured by the use of boxes of stone, stone alone, or anything else which will give the required weight and be readily moved.

Perhaps the following summary of a paper read before the Massachusetts Board of Agriculture contains in a compact form about all that experiments have so far determined regarding ensilage, and we suggest that those of our readers interested should preserve it for reference:

1. Silos may be made with any of the

various building materials, and some very crudely and cheaply constructed have been found to do good service.

2. Silos may be above ground, or under ground, or partly both; they should be water-tight and perfectly air-tight and frost-proof, although these two points are not essential.

3. The situation and construction of the silo, and the arrangements for filling, covering and emptying, should be largely governed by local conditions.

4. Several small silos, independent or connecting, are better than one large one, and the depth should be considerably greater than the length, width or diameter.

5. A silo that will prove efficient may, therefore, be built at a cost varying from twenty-five cents to \$5 for every ton of ensilage it will hold. But like an ice-house, a substantial, well built structure, costing about \$2 per ton capacity, will probably prove in the end the most economical.

6. Silos may be filled slowly or quickly, in all weathers, the forage plants cut or plaited whole, and the cover may be heavily weighted or not weighted at all; the ensilage produced will vary in condition and quality, but these variations of management do not materially affect the result. If the silo is not air-tight on the sides, however, it must be well covered and heavily weighted.

7. Any plant or vegetable product, good for cattle food when green or fresh, may be preserved as ensilage, in an edible and succulent condition, throughout the year or for several years.

8. As a rule, all horses, mules, neat cattle, sheep, swine and poultry, are fond of ensilage, if its material is ever such as eaten by them. Most farm animals prefer it to the best dry forage.

9. The best time at which to cut any growing plant to make good ensilage, is when the plant approaches maturity and has begun to decrease in the percentage of its water contents.

10. The cost of preserving a given crop as ensilage does not materially differ from curing the same crop by drying in a suitable season, but crops can be silaged and preserved in seasons when they would be lost if drying were attempted.

11. All considered, Indian corn makes the most economical and satisfactory ensilage in most parts of the United States, and with a crop of twenty to twenty-five tons to the acre when cut, which is a good average, the total cost may be made, ready for use, at a total cost of \$2 per ton, and for less under favorable circumstances.

12. An acre of corn as ensilage will weigh four times as much as the same crop dried as fodder.

13. An acre of corn, field cured, stored in the most compact manner possible, will occupy a space eight times as great as if in the form of ensilage.

14. The chemistry of the silo is still somewhat in the dark. The contents of any one silo filled with crops from the same land, apparently managed in the same way, may vary in condition and quality in different years. Knowledge of the subject is not yet accurate enough to prescribe with certainty the procedure which will secure the best ensilage. Yet any forage crop can be preserved in a moist, fresh form, substantially unimpaired as to food, although there is generally considerable loss in the carbohydrate elements, and with sometimes a partially compensating gain in the percentage of protein, and an increase in the digestibility of the material.

15. Correct theory reasoning on scientific principles, and the great preponderance of testimony resulting from the longest practical experience, agree in recommending this process to get the best ensilage--Cutting corn so every plant may have abundant air and sunshine to perfect itself and bear ears of grain; harvest when the kernels of the ear begin to glaze, or even a little later, when the plant leaves show some signs of drying--harvest preferably in good drying weather; run the corn through a machine that will cut it into lengths less than one inch, carry on the work as rapidly as possible, keep the cut fodder levelled in the silo, and when full level the top, cover at once and weigh with at least one hundred and fifty pounds to the square foot of surface.

16. As food for cattle, as well as any other kind of farm stock, ensilage forms a very good and cheap substitute for roots, and its condimental effects are especially apparent. But the usual ensilage crops fall to fill the place of the root crop in a judicious farm rotation.

17. In feeding, the best results follow a moderate ration of ensilage, rather than its entire substitution for dry, coarse fodder. Except in the case of animals fed to maintain their weight, ensilage cannot be recommended as a substitute for more than half the long forage consumed.

18. Ensilage, and especially good corn ensilage, when compared with good dry corn fodder or with other feeding stuffs, produces results so satisfactory as to surprise the chemist, and which chemistry cannot explain. As the result of practical feeding tests, it is very generally agreed that three tons of corn ensilage will equal in its effects as food a ton of average hay. This means a farmer is as well off, if not better, with thirty tons of good corn ensilage and twenty tons of hay as with thirty tons of hay. But it does not mean that a man can winter stock as well with ninety tons of ensilage and no dry forage as with thirty tons of hay and no ensilage.

19. A silo or two, well built, but not too large or too expensive, will be convenient and economical on most farms to convert waste products into edible forage, and to save crops which at other times might be lost, if not to preserve some crop specially grown for ensilage.

20. The silo system is best adapted to high-priced lands and so-called high farming, and to farms not suited to profitable grass growing.

21. The extensive use of ensilage upon any farm is chiefly a question of convenience and economy, which local conditions must decide.

A QUESTION FOR MERINO BREEDERS TO CONSIDER.

Is it Advisable for Members of the Michigan Merino Sheep-Breeders' Association to Belong to Other Similar Associations.

[Paper read by D. P. Dewey, of Grand Blanc, at the last annual meeting of the Michigan Merino Sheep-Breeders' Association.]

We had hoped to escape the task of reading a paper at this annual gathering of flock-owners and wool-growers. But if we must again express ourselves, no subject could be nearer our heart than the one given us on this occasion. It requires no research into the hidden mysteries of nature, no elucidation of principles of breeding which is capable of being contradicted by unseen forces, no array of statistical information to clear up the mists of doubt which surround other topics which have been so ably met here from time to time, and to which it is both entertaining and instructive to listen. No, this is a business proposition, viewed from a business standpoint, and from that point is capable of but one answer. In a social point of view it might be answered in the affirmative, but practically the distance to other State organizations is so great as to nearly or quite extinguish the social benefits of being members of other organizations, so we shall treat it from a business standpoint. In all the business relations of life we measure the prospects of success by the unrestrained effort put into it by those who have the business in charge, so we may say whatever success we may have already attained is traceable to the efforts and interest of the members of the Michigan Association.

We do not mean to obliterate any of the good work done by other kindred organizations which has made it possible for us to succeed more fully, no more than we would ignore the fertile soil, the warm rain and the sunshine as elements of productiveness. But with these advantages alike distributed, one class of people progress and prosper, adding beauty, art and education to wealth and contentment, while another has weeds and briars as their inheritance, coupled with ignorance and superstition, both and all the result of trusting to others to do their work, and the elements of growth to fill their granaries, instead of asserting themselves and having a hand in directing and a voice in the management of their affairs. Nay, we should do even more than this; we should insist on changes radical as the felling of forests and firing the timber, spreading the ashes to baffle the coming wind, and grow our crops according to our needs. What would we be without "self assertion"? A tool in the hand of others; where would we be to-day in the opinions of other State associations, had we not in the winter of 1880 asserted that we had become of age, and begun the work of gathering and imparting knowledge among our members and planning to turn the current of interest and money, already rapidly flowing eastward for purposes of registration! In order to more fully enjoy the prosperous condition we find ourselves in on this our annual meeting, let us take a glance retrospective. When first we talked of doing something for ourselves we were met by arguments of every kind and class for the presumption. To rehearse them on this occasion would be unkind and unbecoming, but they should be remembered only to stimulate us to greater self-reliance. And for the purpose of stimulating an effort in this direction, and to turn the attention, interest and capital from its flowing outward to other associations, towards the building up of our own interests and trade, we will go back to our feeble beginning and trace briefly the pleasing results which have crowned the efforts of those who have taken an active part in the advancement of the Michigan Association. A few winters ago, in the pioneer room of this great building, were gathered a goodly number of wool-growers, many of whom were breeders of stud flocks. The meeting had passed off with its usual animation and cheerfulness, and after the reading of the usual number of papers, followed by discussions, the election of officers and adjournment, it was made known that a movement was on foot to organize a Merino Sheep-Breeders' Association, and all who were friendly to such a move were invited to stay and take part in the organization. To familiarize those not present on that occasion with the early history of it, we will state that a very crude and imperfect preparation had been made a few days previous to this meeting in the following manner: C. A. Miller, of Marshall, had offered his sheep for registration in Vermont, and after they were accepted in the usual form one innocent "Lamb" seemed determined that his flock must be contaminated and should remain outside the fold. Thus the Vermont asso-

ciation became doubtful, and Mr. Miller, learning that his word and reputation had been questioned, withdrew his flock in an angry moment therefrom, and believing his sheep to be pure he was naturally a very earnest worker in starting the Michigan Association. He had spoken to parties in Genesee County of the feasibility of the scheme. A. A. Wood and W. E. Kennedy had crossed over the eastern portion of the State by rail to the home of B. T. Ingalls, of Almont, a talented young man whom nobody could suspect of a wrong, thence to Grand Blanc, where a few more men were committed to the cause, who perhaps like the bull that lacked the coming locomotive and tried to drive it from the track, became more noted for pluck than for judgment. These few men, all aglow with the prospects of usefulness and final success of the plan, filled with mingled feelings of doubt, jealousy and determination, did then and there pledge themselves and each other in the sum of one hundred dollars each, if such expense were necessary from them, and to put forth their untiring effort to have and sustain a Michigan Register. It was further understood that said Miller and Ingalls had given consent and aid and were considered accessory thereto, and it was then and there decided upon to call the meeting at the annual meeting of wool-growers in the form and manner above referred to. It may be well to state that in speaking of their object to some of the sheep-breeders they had so far met with little support to their plan, and many were the arguments met and battled with, in reference to it, so on this memorable night, scarcely knowing what was wanted nor whom to trust, with scarcely men enough committed to the scheme to offer it, with Ball in one corner and Hammond in another, and still better than this the reporter in the midst, who had the audacity in the report of proceedings to call it a "ring within a ring," much to the disturbance of the adventurers. Some were afraid it would split the Wool-Growers' Association and its benefits to be derived from papers and discussions, influence on tariff legislation and so on; others could see no reason for such a register so long as other registers were open to our flocks; others, that in case we published one, it would not be received as authority; others deemed it absolutely unfeasible, and still others that there would not be enough go into it to publish it at a reasonable cost. Now let me ask, have all these obstacles been overcome? We think they have, and without boasting we feel proud of the results. We stand to-day a strong, intelligent and what, if possible, is still more powerful, a united band, with our debts liquidated and money in the treasury, and a revenue sufficient to meet all requisite demands for the future. We can estimate that we have already paid to other associations not less than fifteen hundred dollars, and this sum, thrown into our own treasurer's hands, would call for a revision of our revenue rules in order to reduce the surplus and remove the temptations consequent to its accumulation, or we might have sent a representative to Australia with a few choice rams and ewes to solicit our share of trade.

Thus this continual drain on our resources by registering elsewhere has been a brake upon the wheels of progress for our own Association, and it has required much effort, greater determination and tact, to furnish the accommodations, keep the passengers cheered, and "get there" on time; but through our efforts we have made our route popular and our members and many others have procured "thousand mile" tickets at our office, and few will be left in one year who assemble here or come within influence of our members who will be at the expense or trouble of registering elsewhere, for any of the reasons above mentioned.

Our greatest danger now is that after all these hindrances are removed, thereby lifting the brakes from the wheels, that with the same engineer, fireman and conductor and other officers, together with the added encouragement and assistance of the passengers, our speed should be so increased that we shall have "hot boxes" (ballot boxes) and "jump the track." In order to avoid this calamity let us elect some new men in the place of some of the old and excitable ones who have perhaps become "color blind" and don't observe the "switches" which have been thrown in. Let us build a new volume of our register which shall be an improvement on the old. Save some of the surplus sent to other associations for "tariff purposes, or opening up foreign trade." Now this subject leads us to remember that, for frequently urging something in this direction, we have been called visionary, and we will ask your forbearance a few moments longer while we express our views on this subject. Visionary or imaginary, these words are commonly used to express creations of the brain, not yet created in fact, and by the majority of minds not engaged in the vision or imagination considered impossible or not feasible. What great improvements are we in possession of in this century of wonders, but first sprung into existence through the imagination, it matters not whether it be a vision of things that do exist but of which the rest of mankind have no knowledge, this is pronounced imagination till brought to the understanding of others; this was the case with Columbus, this has been the case with astronomers and geologists all along the path of progress. Thus our modern tele-

phone was predicted more than two hundred years before its final development and a crude comparison made, speaking of a wire as a means of conducting sound and at the same time speaking of seeing at long distances as well. Thus it has been with every machine built to lighten man's labor, each and every part of which first existed in the imagination and was afterwards applied to the machine to perform its office. So with the architect. He builds first in his imagination and then makes a draft on paper of lines so nicely arranged that the imagination is helped to stand right out from the paper like the real thing, when in reality that gable, cornice, dormer and bay window are as flat as a sheet of paper. Yet from this plan you are enabled to build the real house in all its completeness.

The breeder of stock, standing in his yard watching his cattle, sheep or horses feeding before him, draws an imaginary line straighter or more perfectly curved, from hips to tail, and then sets to work to breed one filling this imaginary space with bone and flesh. You may say he gets his improvement from some real animal which has this point. Not so. We may all copy, but the improver has to invent. In other words, it was first created in man's imagination, then applied to the animal. Thus we might recite the improvements in domestic animals, the improvements of art and machinery, the building up of governments, in fact, all man's power for improvement lies in the power of vision or imagination, and these terms are coming to mean "something yet undeveloped."

As for me, I want no association of sheep-breeders who do not imagine what Congress may attempt to do with our protective system, and set to work to controvert it; who do not imagine the kind of record that will be demanded in the future, and steadily labor to provide it; who do not imagine the wants of the coming generation for a Merino sheep, and begin its construction; who have not, from the lessons of the past, caught a "vision" of the future, and acted accordingly. It is true some possess this visionary power in a small degree, or, through being absorbed in other matters, do not develop their power of vision in this direction. In other words, they ride with the tide to the engine and never see anything till they have passed it. 'Tis then they are most lost in its admiration, and want foremost place in its adoption, while those who are earnestly laboring to bring into reality what was but a vision, in other words to "realize" on their "vision," these have little credit from such for their efforts. One thing is certain: whoever takes an advance step in the subject is the object of criticism for every error of that step, and when once pointing the way in the darkness toward the far off light, must needs labor untiringly to prove his position, or even in absence of its proof and entire practicability by reason of labor undone, it remains as a vision and not a fact; until some later visionary taking up the work where the first one failed, leads us all into the light pointed out by the first, thereby proving him a profound man and a public benefactor.

So let us bring our vision to bear on a foreign trade, and set to work to get it, and instead of copying others, and being assistants in their work, let us put all our time and money into the work of improving our register and our association. We can build one which will give a clearer idea of the breeding of the animals recorded than some others now do, and save the money and time now expended on others to help ourselves. We shall succeed just in proportion to the effort we put forth, and if that effort is divided it is weakened. We have made rapid advancement during the past year, and many new applications for record at this meeting have been made on account of the acts and advice of older members, to make our association the only one needed for us. Let us then each and all rouse ourselves to action, and instead of mourning over what might have been, or what is not what it should be, set ourselves to work to make it better by our patronage, by our liberal way in dealing with things, by our attendance on these meetings, by the active part we take in its proceedings, and by our undivided support of its officers and rules. It is ours if we will to have the best register, the most intelligent class of men engaged in breeding, the best flocks, if not the most, and the best western and foreign trade if we will.

OUR Paris correspondent says that in consequence of the continued frauds in seeds, the French government intends to have a law voted, creating inspectors of farm seeds offered for sale. The prosecution will be attended with few difficulties, the penalties will be severe, and the compensation allowed to farmers injured by the fraud will be liberal. A commission is to visit Germany and study how the pure seed law there works.

THE four hundred dollars donated to the State Agricultural Society for repairs to buildings by the Jackson County Society, has been paid over to Mr. Franklin Wells, chairman of the Business Committee, and very soon a start will be made on the work. The roofs will be put in shape and made perfectly tight, glass replaced, buildings cleaned out, and everything made ready for exhibitors in the various departments.

The Horse.

Dates of Trotting Meetings in Michigan for 1888.

Kalamazoo	June 26 to 29
Grand Rapids	July 3 to 6
East Saginaw	July 10 to 13
East Lansing	July 17 to 20
Detroit	July 24 to 27
Ann Arbor	Sept. 4 to 8
East Lansing	Sept. 11 to 14
East Lansing	Sept. 18 to 21
East Lansing	Sept. 24 to 28

THE SAGINAW MEETING.

The Michigan trotting and pacing circuit, which includes the cities of Kalamazoo, Jackson, Grand Rapids and East Saginaw, opened at Kalamazoo on Tuesday last, and will close at East Saginaw July 17, 18, 19 and 20. The track there has been put in good shape, and horsemen can be assured of good treatment at the hands of the management. The people of the Saginaw Valley always turn out well for race meetings, and as the prizes are liberal and a good lot of entries assured, there is no reason, except bad weather, which should prevent this meeting from being a very successful and interesting one.

The entries for this meeting close Saturday, July 7th, and the Secretary is W. J. Bartow, of East Saginaw, who is both an efficient officer and a popular gentleman.

On the first day, Tuesday, there are two races on the programme, the 2:18 and 2:28 classes, with purses of \$1,000 in each. On the second day the 2:34 and 2:40 trotting races, with \$1,000 in the first and \$800 in the last race. On the third day there will be the 2:21 trotting, and free-for-all pacing (Johnson barred), \$1,000 in first and \$800 in the second. The last day will be a good one, three races being scheduled, namely, the 2:30 trot, 2:34 pace, and free-for-all trot. The purses are \$800 in the first, \$600 in the second, and \$1,000 in the last.

In the 2:28, 2:32 and 2:40 trots a large number of Michigan horses should find a place. It is the place for those breeding trotters to test the merits of their stock in actual competition, which, after all, is the only way for a breeder to arrive at a proper estimate of the value of the stock he is breeding.

INTERESTING NOTES FROM FRANCE.

From our Paris Correspondent.

The French Omnibus Company has never been backward in originating or in testing any ameliorations for the treatment of its horses. It was among the earliest to try maize as a part substitute for oats. M. Lavaland, the head inspector, corroborates the success, after several years' trial of the reduction by the moiety, in the feed of oats and of its replacement by maize. The horses never did their work better, he adds, nor were in such excellent condition. This may be very true, but from personal observation the bus horses of to-day, seem to lack the fire and dash of their predecessors of ten years ago, and they are becoming heavier. A Percheron without vivacity, seems to drop into the dust of dray horses. Wolff, the German chemist, believes the substitution of maize in practice as in principle, and quotes the success in the case of the German cavalry.

M. Sanson has demonstrated that the exciting character of oats is due to an alkali called *arsenic*, which resides in the pellicle that coats the grain itself. It is that alkali which imparts vigor to the horse; hence the necessity to give the feed of oats as near as possible to the time when the horse will be called upon to exercise the vigor—say before going to work. There is more of the stimulating ingredient in black than in white or yellow oats. The following is the daily ration for a horse of 11 cwt. in the French Omnibus Co., in pounds weight: Hay, 9; straw, 8; oats, 7½; maize, 11; and beans, ¾ of a pound.

Professor Sanson has concluded a series of experiments on the feeding of mules, and explains that it is to the greater digestive power possessed by the mule, that its relative superiority over the horse in the matter of work is to be attributed. He has demonstrated that the mule digests 67 per cent of the dry substance of its ration, while in the case of the horse the percentage is only 61 per cent. Now from numerous investigations made by Wolff at Hohenheim, on horses fed with hay and oats, the percentage of digestion varied from 53 to 57. Here the difference in digestive power of the mule, as compared with the horse, is 10 per cent. Now through what elements in the food is this remarkable difference effected? Through the protease or nitrogenous compounds, for while the horse digests 52 per cent of woody matter, the mule digests less than 50. The source of strength then lies in the nitrogenous matters, and the mule appropriating from six to 10 per cent more of these than the horse, is relatively stronger. The same parallel results apply also to the ass.

In Belgium there is a veterinary surgeon who tames the wildest horse, or any horse difficult to shoe. He pours on a cloth a quarter of an ounce of an essence made from the distillation of parsley. The horse becomes immediately quiet, gentle as a lamb. The roots and leaves of parsley enjoy the reputation of possessing medicinal qualities of a calming character. Parsley seeds when distilled yield a camphor that intoxicates like hashish.

Raising Colts on Cow's Milk.

It quite frequently happens that by the loss of the dam a colt has to be raised "by hand" upon cow's milk. Without knowing anything about the management of such an experiment it proves a failure, or at least not as much of a success as it ought. On this subject the *American Cultivator* says: It is not a difficult matter to raise a foal upon cow's milk when proper care is taken in preparing the milk, and it is given frequently in small quantities. New milk should be given at first, and should be about blood warm, say from 95° to 100° Fahr. Most foals can be taught to drink the same as a calf. If the milk is slightly sweetened with sugar or molasses the youngster will relish it better than if given clear. About one pint of a feed is sufficient at first, and a teaspoonful of lime water should be added to each feed to keep the stomach in good condition. This pre-

caution is very important, and the lives of many valuable colts have been lost through a lack of observing it. Directions for preparing lime water were given a few weeks since, but are repeated. Stir four ounces of freshly burned lime into a gallon of water. Put aside until it settles, then pour off the clear solution into a stone jug, cork and keep in a cool cellar. No farmer who raises calves or colts should be without this. If the colt is very weak add two or three teaspoonfuls of brandy, whisky or spirit until it revives. The diet of the colt should be by hand, consisted of fresh cow's milk, sweetened with loaf sugar to which was added at first a little Jamaica rum. Be careful to see that the bowels are in proper condition. Young foals are very often unable to pass the meconium, and sometimes die from this cause. An injection of from a half pint to a pint of lukewarm water, given by means of a small bulb syringe, is the most simple and effective remedy for this difficulty. It acts quicker than a dose of oil, and is far less injurious to the patient. The foal should be fed every three hours during the first two weeks of its life. When the milk is not given directly from the cow, the cream should be stirred in before warming. Care should be used to see that it is not given too warm, as that is liable to produce relaxation of the bowels or scouring. An excellent remedy for this complaint, when it does exist, is to beat up an egg and add to the milk. If this does not produce the desired effect boil one-fourth of a pint of flaxseed slowly in two quarts of water until cooked, then add a half pint each of shorts and oatmeal. Boil a short time, making a gruel. Give a half pint of this and a half pint of milk for a feed instead of a pint of milk. As the colt grows and his appetite increases, the ration should be correspondingly increased. After he is a few weeks old skimmed milk can be gradually substituted for new without detriment. In fact, skimmed milk is better for growing foals than that from which the cream has not been removed, as it contains a larger proportion of bone and muscle producing elements. Whole milk is apt to fatten them too much. After the colt is a month old a smaller proportion of lime water will be required. A tablespoonful to a gallon of milk will then be sufficient, and it can soon be omitted entirely.

A Horse's Vitality.

At the ranch of Mrs. Davis, near Lincoln, a few days since, it was discovered that a valuable horse in some unaccountable way had sustained a frightful injury. There was a deep wound almost directly between the horse's eyes, and it was at first thought that he had been shot. The animal was brought to this city, however, and put in charge of a veterinary surgeon, who probed the wound and ascertained that the opening was closed by some hard substance. When the horse's mouth was opened it was found that the object producing the injury had penetrated so deep that it formed a lump in the roof of the upper jaw. The surgeon proceeded to cut an incision at the surface of the wound, and then inserted a pair of forceps, with which he took a firm hold on the hard object. By exerting all his strength the surgeon was able to extract a piece of wood over six inches in length and nearly an inch in thickness.

It was deemed certain that the injury would prove fatal, but it was decided to make an effort to save the animal. The piece of wood, the surgeon says, did not miss the animal's brain the sixteenth of an inch. The wound was opened in the horse's mouth that all pus might flow therefrom, and the wound was washed out regularly and is healing nicely. The horse submits to the treatment without objection and with almost human intelligence. It is now assured that the animal will recover, with no further damage than the loss of an eye—a result regarded by horsemen as extremely remarkable. It is not known how the injury was received, but it is believed that the horse while at play ran violently against a projecting board.—*Sacramento Bee*.

Horse Gossip.

SENATOR STANFORD says he intends putting 25 of the get of Electioneer into the 2:30 list this season.

RICHARD TEN BROECK, the famous turfman, has purchased a farm near Palo Alto, sixty miles from San Francisco, and is fitting it up as a residence.

THE Victoria, Australia, Racing Association will give over \$100,000 at the spring meeting this year, the Melbourne cup being worth over \$20,000.

PRESIDENT CAMPAU, of the Detroit Driving Club, has secured Clingstone and Mambrino Sparkle for the 4th of July team race at Hamtramck, and is looking for a pair of flyers to match them.

CORA BELLE, 2:29½, by Jo Gavin 564, dam by Louis Napoleon 297, has foaled a brown colt by Wilton, 2:19¾, which is said to be a good one. This mare is owned by L. C. Webb, of Mason, Ingham County, and was sent to Kentucky to be bred. This year she will be bred to Lord Russell, full brother to Maud S.

MESSES. SUTHERLAND & BENJAMIN, of East Saginaw, have had dropped on their farm a filly colt by Sphinx, the only son of Electioneer in this State, and from the mare Shoo Fly by Dunbarton, dam by Strathmore. This shows the quality of the trotting stock which Michigan men are breeding.

THE sale of the trotting horses of the late Commodore Kitchin, of St. Paul, took place on Wednesday last. About 400 bidders from various Western States were in attendance. The 42 horses sold brought \$54,000. The famous mare So So was bought by E. D. Stout, Dubuque, Ia., for \$8,500, the highest price ever paid for a brood mare in America.

THE Michigan Trotting Circuit opened at Kalamazoo on Tuesday last, with a good attendance and the track in fine shape. Two races were trotted the first day, namely, the 3:00 and 2:28 classes. The first had four starters, of which three were Michigan horses, Sleepy Diok, owned at Grand Rapids, being the winner. In the 2:28 class there were 15 starters, of which eight were owned in Michigan. This shows how fast Michigan is advancing in the breeding of trotters. There is a lot of youngsters coming up in this State which will yet make the best of them hustlers to get away with.

By the way, horsemen do not want to forget the very liberal speed premiums offered

by the Michigan State Agricultural Society the State Fair is to be held at Jackson this year, on September 10th to 14th inclusive. Entries close on Saturday, September 1st, and should be addressed to J. C. Sterlings, Secretary, Monroe, with five per cent of the purse. The balance on or before 8 p. m. of the day previous to the race. Write Mr. Sterlings for premium list and entry blanks.

When a horse is left to shift for itself in pasture its shoes be taken off it will rapidly recover the natural use of its feet, too often injured by improper shoeing and travel on city pavements. Street-car horses often go lame by hard usage, and are sold for a low price, when only a little care and a run at pasture will fix them all right. The green grass in June acts as an over-worked horse like a tonic—the soil is moist and pliable under his unshod feet, and his hoofs expand till they are as good as new.

THE winning of the American Derby by Emperor of Norfolk, on Saturday last, stamps him as the great three-year-old of the year. He is a big slashing fellow, and won so easily from a good field that it is doubtful if there is a three-year-old on the turf which would stand any chance against him. The winner carried off about \$15,000 as his share of the prize. Seven started. In commenting upon the race before the start, a Chicago paper said: "There were seven starters—Emperor of Norfolk, Falcon, Los Angeles, Billy Pinkerton, the Chevalier, White, and the Lion. The horses were keenly scanned as they took their preliminary canter, but the cheers were reserved for the Baldwin pair. In appearance the Emperor clearly outshone his competitors. Quality, power, speed and perfect condition were clearly portrayed in his massive but symmetrical form and shining coat. He made the other look like commoners."

The Farm.

Fine Points in Butter Making.

Is flavor in butter a natural or an artificial result? The early dairy writers credited flavor to the presence of butyric acid, always present in butter, but lately it has come to be more largely thought by scientists that it is caused by the aromatic oils of vegetation. This may be illustrated by feeding one cow on oatmeal, fine hay, etc.; and another cow on poor hay, onions, cabbages and other vegetables that have distinct volatile oils, not digestible. (Some foods may not show in the milk, for the reason that they possess no indigestible matter, or distinct flavor.) The flavor of our best pasture grasses goes into circulation, and their presence is of great value, and we therefore put May and June grass butter at the front, for fine flavor. In winter we need hay cut in blossom, for then the grass flavors are most abundant and the curing of the hay only partially destroys them.

The natural flavor of butter is one thing, and the demands of many customers are another. Sour, sweet, ripe or bitter cream; salt, sugar and all other influences are artificial, and are made more or less prominent by the skill of the butter maker. Now then we find a person who likes the salt and buttermilk flavor. Many assert that ripening cream by bringing it in frequent contact with the air is not a different kind of acidity; but they are as different for a time, as the acid of cheese curd soured in whey, and the same curd dipped sweet, and allowed to take acidity in warm air. The great authority on dairying says that "ripening cream fast molds flavor, while the slower lactic acid souring of cream is not only detrimental, but is the beginning of decay."

It is a great wonder to many why centrifuge butter well made keeps so well. I don't know, but if anyone will examine the coating of a machine after it has "thrown out" a few thousand pounds of milk, and notice the offensive slime there deposited, the matter may in part be explained in theory. This "smeary substance" must remain in the cream in ordinary processes of making, and must lend its influence to the butter. Water is a solvent of it, and washing butter helps remove it. I hazard a guess that "ropy" milk may possibly be caused by a superabundance of this offensive substance. "Tainted milk" is also in dispute and the causes for it. It may be defective food, foul water, a feverish or diseased condition of the cow, or combination of all these, and things not dreamed of as yet in our philosophy. I notice some experiments made at the East about this, viscosity, or "stickiness," in milk. Cream that was hard to "come," when thinned with water, several times its bulk, and thoroughly mixed and allowed to rise again, when skimed and churned, came readily. Some of our own scientists now "think" they can foretell the quantity and keeping value of butter by determining the viscosity of the milk; the less there is the better the butter; but they do not tell the ordinary butter maker how to find this out. All butter makers can wash the buttermilk with weak brine. This will remove one great cause of rancidity in butter—putrefying buttermilk.—*Cor. Ohio Farmer*.

THE Secret of an Extraordinary Cow. The Orange Co., N. Y., Farmer tells the following:

A short distance from a city in western New York lived a farmer whose business was to furnish families in the city with gilt-edge butter from 10 or 15 cows. Having an eye for a good cow he would sometimes furnish one to such men in the city as wanted to keep a cow of their own. He purchased a cow and when he had fitted her for market he would sit round the saloon, groceries, etc., and brag what a good cow he had. He had a cow that gave 100 pounds of milk in 24 hours, and as he had more than he could keep, he would sell her for the low price of \$100. He soon found a customer, but to be sure he wasn't cheated, he wanted to see her milked himself. The time was arranged when he came and saw her milked at night and in the morning, the milk weighed, filling the recommend, the money was paid and the cow taken home.

A few days after the vendee saw the vendor and said to him: "Was that cow milked in the morning that time I saw her milked at night?" "Certainly she was," was the reply of the vendor. "Why do you ask such a question?" "Because," said the vendee, "she don't do so well for me as she did for you." "How do you feed her?" asked the vendor. On being told the feed the cow got the vendor said, "You don't feed her as I did; if you want her to do as well for you as she did when I had her, you must feed her as I did." The vendee went home, increased the cow's feed to all she would eat, but all to no purpose; he could not bring her up to where she was when he purchased her. A while after he saw the vendor and told him what he had done, and the cow did not come up to the mark. "Why," says the vendor, "you don't feed her as I did. If you will feed her as well as I did she will do as well for you as she did for me." "Well," says the vendee, "how did you feed her?" "Oh!" says the vendor, "besides all you have been giving her I gave her the skim milk of eight other cows." "Well," said the vendee, "you have got the skim milk of eight cows to give her." "Well, then," says the vendor, "if you can't feed her as I did she won't do so well for you as she did for me."

Silage Fed Beef.

At Leicester, Eng., recently, a company of agriculturists partook of lunch from beef of a 22 months' old steer, which from birth had been fed on nothing but milk, silage, and linseed cake, and whose carcass weight when slaughtered, was 5 cwt., 3 qr., 16 lbs., which at 7d per lb. would give a value of £19 15s. The quantity of silage consumed was 28 lbs. per day from the age of three to six months, 35 lbs. per day from six to eight months, 45 lbs. per day from eight to ten months, 50 lbs. per day from ten to twelve months, and 55 lbs. per day from twelve to twenty-two months, making 12 tons, 2 cwt., 3 qr., 8 lbs., altogether, which was the product of 1¼ acres of clover mown twice. In addition to this the animal consumed 8 cwt., 1 qr., 15 lbs. of linseed cake, 45 gallons of new milk consumed in the first month, and 144 gallons of skim milk in the second. This was valued at £1 18s, the silage at £2 19s 6d, linseed cake, after deducting ¼ for manure value, at £2 10s 3d, and after adding £3 17s for labor and attendance, cost of litter and cost of calf when experiment commenced, there was still a balance of £7 10s 3d in the animal's favor. The steer did well on the silage and was thoroughly healthy throughout, and the beef was considered to be of excellent quality, so that the experiment may be considered as having established two very important conclusions—first, that cattle may be fattened entirely on silage and linseed cake, no addition of hay or dry fodder being requisite; and secondly, that when so fattened a very satisfactory return may be realized, quite equal to that usually derived in feeding on roots and hay.

German Millet.

A correspondent of the *Indiana Farmer* gives that paper the results of his experience with the German millet: As to the product, in good soil, I can safely say it yielded 3½ tons of hay per acre, which was equal to 10 of my clover hay for feeding. Some may think this a large yield, but I believe it is not as large as I should put it, and think it is not an over estimate.

I am very particular to get the pure German millet seed for sowing, as in many places the common millet is sold for German which will not yield over half as much. I usually sow about one bushel of seed per acre, broadcast, and lightly harrow, or brush it in. For hay it should be cut when in bloom, and thoroughly cured before stacking or placing in the barn.

This year, as the hay crop is very short, I have sowed about 15 acres, and as soon as my oats are cut, I will sow about 10 acres more.

I recommend all to sow millet, if only in a small way, and see what a large amount of hay you can grow on a small piece of ground.

Churning and Salting.

What makes butter come? Is the question propounded by the *United States Dairyman*. It is not known whether concussion or friction, or both, cause the separation of the butter from the buttermilk in churning. But we suspect that concussion is the real agent that produces the separation, as we have really seen no churn that did not in some way produce more or less concussion. All the churns we have seen used appeared to produce good results, and we find every dairyman is satisfied with the kind of the churn he uses, whatever the kind, style or patent. We cannot therefore recommend any style of churn as superior to another, but we prefer the simple and less expensive forms, as not only costing less but being easier to keep clean. The churning should be steady and not violent. A too rapid or sudden separation of the butter from buttermilk is not desirable. It is no recommendation for a churn that it churns quick. Such a churn is apt to injure the so-called grain of the butter, and make it salty and greasy.

The least churning that will separate the butter from the buttermilk is the best. When to stop churning—The improved model method now in practice by the best butter makers is to stop the churn as soon as a wheater is collected in particles the size of a wheat kernel. Just before this, when the first signs of the separation of the butter is seen, the sides of the churn are washed down with cold water—usually below 60 degrees, or about 55 degrees—to not only prevent waste, but to harden the butter and make it easier to handle. When the granules are the size of wheat kernels the butter is drawn off, or the butter taken out of the buttermilk, as the case may be. If the butter is left in the churn water is poured in to float the butter, which is then gently agitated a moment and the water drawn off. This operation is repeated until the water runs clear. Sometimes one of the washings is in brine, which coagulates the caseine into a soluble form and prepares it to be washed out afterward. In this way it is believed that purer, longer keeping butter can be made. In some cases, however, butter makers have customers who want a butter-milk flavor in their butter. They, therefore, do not wash the butter, or wash it very little. Such butter must be consumed at once, as it will not keep. By this method of retaining the butter in a granulated form only sufficient working is required to evenly work in the salt. The less working the better.

The salt, after the butter is properly drained, can be carefully mixed with the butter by stirring. When thoroughly incorporated, barely pressing the butter together in a solid mass but that is needed, if one does not want butter very salty to taste, it can be even and nicely salted by completely wetting it with saturated brine,

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from Biliousness, Constipation, Piles, Sick Headache, Sour Stomach, Colds, Liver Trouble, Jaundice, Dizziness, Bad taste in the Mouth, etc.—You need Suffer no longer—

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then carefully pressing the granulated butter together and leaving in it as much of the strong brine as will remain. We have seen butter salted in this way, and it was very evenly and completely salted, having in it no undissolved grains of salt, but it was not as salt to the taste as some like. About an ounce to the pound is good salting, but more or less salt must be used to suit the taste of customers. None but refined salt should be put into butter. The principal office of the salt in butter is to impart an agreeable flavor in connection with the natural aroma of fine butter, but it is a fact that too much salt injures good flavor, and it may, to some extent, be used to cover up or neutralize bad flavors. We do not recommend its use for this latter purpose, preferring that the natural flavor of butter from pure cream should be preserved.

Agricultural Items.

IMPLEMENT men are experimenting with a machine which will haul the ears and cut up the corn-fodder at one operation.

HON. J. D. LYMAN mentions an instance where a man's well went dry without any seeming cause, and it was discovered that two large rock maples near by had sent down their roots far enough to completely drain it.

THE lighter character of the soil the better the quality of the syrup made from the sorghum grown upon it. A clay soil will make a syrup as light and clear as honey; a wet, black soil will make a dark-colored, strong flavored syrup.

QUITE an industry has grown up on a farm within easy reach of New York City. It is the furnishing of bundles of green clover to the stables and liverymen. The clover is tied up and sold at the rate of two bundles for 25 cents.

A KENTUCKY man who has kept sheep all his life, says his flock saves him \$100 a year which otherwise he would have to pay to laborers to cut the weeds on his farm. Besides this saving, there are the returns in the shape of wool and mutton. A sheep costs on every six months and pays its bills; it does not die in debt.

PROBABLY the cheapest meat that the farmer makes is the pork that he makes on clover. Of course reference is not so much to the actual pork which fills the barrel at Christmas as to the muscle and bone which are built up by the summer clover makes the frame; the old corn fills it with fat.

MR. CARMEN, of the *Rural New Yorker*, ascribes the remarkable yields of corn which he obtained in 1880, and which still form the subject of various newspaper items, to a thorough fitting of the soil, to broadcast fertilization, to drill planting and to shallow and light cultivation, united with a favorable season. The varieties were the Blount's Prolific and Chester County Mammoth, and the yield was 120 and 150 bushels of shelled grain on an estimated acre.

AN exchange says farmers often fail to get over two-thirds what their cattle are worth, simply because they neglect to train them when they are young, in all those habits so essential to a safe, reliable animal. A colt accustomed to being handled, and not afraid of umbrellas, the cars, or any unaccustomed thing, and gentle and well broken, is worth much more than one which has been educated with a sled stake and is "wild as a hawk."

THERE are 130 cheese factories, 83 creameries and six combination factories in St. Lawrence County, N. Y. The 130 cheese factories will make this season in round figures 280,000 boxes. The 83 creameries will make about 3,984,000 pounds of butter. The combination factories, manufacturing butter and skim cheese, turn out a product equal in value to the creameries. The total milk value of the county is estimated at \$3,000,000.

The Poultry Yard.

Young Turkeys.

"Fanny Field," in the *Ohio Farmer*, thus advises poultry growers: Let your young turkeys alone while hatching. When all are hatched and the hen is ready to leave the nest, remove the mother and her brood to a snug, clean coop that has a safety run attached. The coop should be of fair size, have a broad floor that should be kept covered with dry earth or sand, and the front should be made so that it can be closed at night, and in stormy weather. The coop will need to be a little larger for a turkey than for a hen. For the first two or three days keep the mother and her brood confined to the coop and pen; then if all the poultry are strong and lively, open the pen on pleasant days after the sun has dried the dew from the grass and let the little turkeys wander at will. They will not go far from the coop. Do not feed anything until they are about a day old; then give the egg and bread (as recommended for chickens), mixed with one part of "Dutch cheese." Season the food lightly with salt and black pepper. After the first day or two chop a little lettuce

or onion tops fine and mix with the food. Keep on this fare for about two weeks, and feed regularly five times a day, but do not leave food by them.

Whether grease will hurt young turkeys if applied to the feathers, depends upon how much grease is used. If a young turkey were greased all over it might kill it; at any rate I should not try it. For lice use the carbolic powder, or insect powder, as recommended. To prevent or kill the large lice on the head, just touch the top of the head when they first come from the nest with a mixture of sweet oil and carbolic acid. A drop of the acid to a spoonful of the oil is sufficient. If the hens are well dusted with sulphur when beginning to sit, and again about a week before the turkeys or chicks are due, and sulphur or tobacco is mixed in the nesting, the young will come from the nest free from lice or mites. And if they are put into a clean coop, and hen and chickens have a chance to dust themselves free from lice, they will keep remedy for free. Dust is nature's preservative for lice, and all poultry keepers should see that fowls and chicks have at all times a suitable place where they can walk in dry earth.

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As a Diuretic, it regulates the Kidney, and Cures their Diseases.

Horticultural.

COMMERCIAL FRUIT-GROWING IN MICHIGAN.

(A Paper Box) by W. A. Brown, of Benton Harbor, at the recent meeting of the West Michigan Fruit-Growers' Association and the State Horticultural Society.

In a "Catalogue of Fruit-Growers and Shippers," compiled by L. J. Merchant in 1873, many interesting facts regarding the early development of fruit-growing in the St. Joseph region are preserved. In 1834 a Mr. Brodiss, living on the St. Joseph River, near Niles, supplied the commercial town of St. Joseph with peaches, which were run down the river in a canoe. As the country around Lake Michigan became settled, comparisons of the temperature were manifested by the survival of the semi-tropical fruits on the western shore, and the influence of the lake in the reduction of the temperature in winter, and the retarding of vegetable growth in spring, was proven by Professor Winchell and others; and about 1855 the fruit-belt of Western Michigan was clearly outlined. Previous to this time several pioneer peach-growers had foreseen the important future of the business, and peach orchards of the improved varieties had been planted by B. C. Hoyt, Hon. H. C. Morton, George Parmelee, L. L. Johnson, Captain Curtis Broughton, and a few others. During this period Chicago began to develop and St. Joe peaches found a ready market. Captain Broughton was the first in the trade, buying and packing in barrels and dry-goods boxes. He shipped in his little vessel, sailing in Chicago at a large advance. In 1850 he shipped about 1,000 three-peck baskets, very few of which were of improved varieties. The first barrel of good peaches came from an accidental seedling tree grown on the Conger (afterward Stern Brunson) place, now Benton Harbor. They were sold by the captain at auction, in Chicago, and brought \$8. The captain planted budded trees at St. Joseph in 1849. The George Parmelee planted his first orchard in 1858, which was subsequently enlarged until it covered 90 acres, when it was sold for \$43,000. In 1860 a number of intelligent persons had been attracted to this region and large orchards of peaches and apples began to be planted, and the first berries for market purposes were planted the same year. The growth of the business soon assumed commercial proportions, until in 1869, 9,314 acres of the various fruits were reported in bearing, in the region tributary to St. Joseph and Benton Harbor.

A report made in the St. Joseph *Traveler* in 1865, gave the number of peach trees in bearing as 201,603. In 1869 the Hon. John Whitley reported the number increased to 335,530. A canvass of six townships, made by L. J. Merchant, in 1872, gave the total peach plant as 594,467 acres. The alarming increase of yellows subsequently reduced the number of peach trees rapidly, until in 1878 the beautiful peach orchards of Berrien County were almost entirely obliterated. The virulence of the disease and the magnitude of the loss paralyzed our fruit-growers who refrained from planting more peach trees, until the remains of the old stock were entirely destroyed. The theory that upon the removal of all diseased trees, peaches could again be successfully grown, has been verified, our young orchards having produced fine fruit during the past two years, and very large plantings have been made with full confidence in the successful culture of peaches in the future.

The temporary decadence of peach growing has not detracted materially from the commercial interests of fruit-growing in Berrien County. In 1873 the shipments of small fruits had assumed large proportions, which have been greatly increased and diversified by the production of a great variety of horticultural products, until, in 1887, the aggregate value of fruit and vegetable products shipped from St. Joseph and Benton Harbor was estimated at \$900,000.

The climatic conditions in Van Buren and Allegan Counties, for successful fruit-growing, are not excellent in the fruit belt of western Michigan. Peach-growing having commenced at South Haven at a later period than in the St. Joseph region, and yellows having destroyed a large part of the orchards in Berrien County before serious damage was inflicted at points further north, our northern neighbors were enabled to ward off the threatened invasion; and wherever the provisions of the yellow laws have been strictly enforced, peaches have continued to be successfully grown.

Within the last decade Allegan has assumed the place of the banner peach-growing county in Michigan. A canvass made by Senator C. J. Monroe, of South Haven, last year, shows the total acreage of fruit in the three counties of Berrien, Van Buren, and Allegan, as being: Apples, 85,000 acres in bearing; and peaches, 12,000 acres in commercial gardening 7,000 acres. The acreage in grapes and small fruits could not be correctly estimated. Mr. Monroe estimated the total home cash value, including packages, at \$1,019,960. Six townships in Allegan County produced about the same quantity of peaches as was grown in an equal number of townships in 1873.

Otaw and Muskegon Counties, not having the high, fertile table lands along the lake and river, have generally proved unfavorable for peach culture, extensive orchards having been repeatedly killed by severe winters. Grapes and small fruits are successfully grown, however, at many places, Grand Haven and Muskegon now growing extensively for export.

Ocean County, being on a promontory extending toward the central part of Lake Michigan, with good soil and the necessary elevation, is proving one of the best fruit counties in the belt. A recent summary of the fruit crop in 1887 gives shipments of 45,015 barrels of apples, 21,375 bushels of peaches, and 5,884 bushels of plums. The counties north of Ocean, and bordering on Grand Traverse bay, are growing a variety of fruits which are celebrated for color, texture, and long keeping qualities.

The highest lands in Kent and other counties in western Michigan are proving to be well adapted to peach-growing; and while supplying the local demand, Grand Rapids and other inland towns are shipping large quantities of peaches.

During the past thirty years vast improvements have been made in the west, and the adaptability and material interests of different localities have been proven and develop-

ed. Railways have opened to settlement a vast agricultural country; cities of metropolitan magnitude have been built, and commerce sustained by contributions levied upon agriculture, while the surplus products of the soil have found a greater or less remunerative market among the great army of non-producing workmen engaged in other pursuits.

When the first Michigan fruits were sent over the lake, the little village of Chicago numbered about 300,000. Now Chicago claims 800,000 inhabitants and will soon make the figure a round million. Chicago, the "Garden City," has absorbed its cabbage fields and swamps, and now demands the choicest offerings of horticulture and pomological productions from every country and clime to supply the daily demand. The instincts of the human family to partake of the first and best fruits, have been manifested by every country and people, from the good old days of Adam and Eve, down to the present generation of prairie pioneers. Coming from regions in the east, the fruits indigenous to the home of their fathers have been planted in the new home, only to blight and die if exposed to the bleak winds and low temperature of the open country throughout the northwest. All of the tree fruits planted by the early settlers through the timbered regions of the middle States flourished and produced fruit in abundance until the removal of the forest opened a passage for the fierce winds from the polar regions of the far northwest. The influence of the great lakes in the protection of certain areas of country is becoming more clearly defined by the curved lines of the deadly blizzards which, coming from the northwest, are repelled by Lake Michigan, but returning from the southwest, invade the southern-central part of our peninsula, thence onward over Lakes Erie and Ontario, which again afford protection to the favored regions in northern Ohio and western New York.

Commercial fruit-growing in western Michigan is but the natural result of the climatic conditions of our locations and the lake influences, which have so far protected this "infant industry," and must always exist independent of government subsidies or the leveling propensities of our people, which prompt them to cut down, drag out, and destroy the last remnants of our noble forests.

In connection with commercial fruit-growing the questions of remunerative markets, transportation, and distribution are worthy of more consideration than the limits of this paper will allow. Different systems are being adopted at large fruit-growing centers for the distribution of perishable fruits. The fruits of California are placed in all of the eastern markets by a combination of growers, whereby their own agents procure the lowest train rates in cars built especially for the fruit trade. The whole country east of the Rocky Mountains is distributed, and a full supply of California fruit is constantly offered for sale in every eastern city where a local supply of better fruit does not prevent competition.

Southern perishable fruits find a ready market throughout the north, before our fruits mature, while the inter-State and other co-operative distributing agencies are supplying cities outside of Chicago with carloads of fruits direct from the growers.

The "Chautauque Grape-Growers' Union" grade and pool the crop and ship to every town where a car of grapes can be distributed, procuring extremely low freight rates and the cheapest commissions. Although but five per cent is charged for selling perishable fruits in the eastern cities, the old system of consignment by growers is being almost entirely superseded in the celebrated fruit-growing districts on the Delaware and Maryland peninsula. A system of fruit exchanges has been established at all of the large shipping points, where the fruit is sold at auction to dealers from the large cities. The fruit exchange is supplemented by the "bureau of information and distribution," which has already made arrangements to ship train-loads of peaches to Chicago, and car-loads to other large cities in the north-west.

In illustration of the Delaware and Maryland system, I will quote here an editorial from *The Farm and Home*, of Wilmington, Delaware, published May 31, 1888:

"As time elapses, the prospect for a full crop of peaches increases rather than diminishes, and only an unparalleled 'June drop' can prevent an enormous yield. With this prospect before them the growers should lose no time in making all possible arrangements to market the crop at a profit. The object to be accomplished is to secure the widest and most rapid distribution of the fruit. There are twenty millions of people within reach of the peach orchards of Delaware and Maryland, to say nothing of the much larger number that may be reached by canal and water transportation. There is, therefore, no need of having this crop waste in the orchard nor be shipped at a loss to the growers if all these twenty millions of people can be reached every day in the week. The fruit exchange is taking active measures to secure buyers from all markets, and will in a large measure be successful. The bureau of information and distribution, which has been so carefully and thoroughly planned by Mr. Fulk, will come in to distribute the fruit which is not bought on the peninsula. To encourage commission merchants to come here, those who buy for their own houses and pay cash will be given the first choice of their own market, and hence can practically control shipments to that market. Mr. Fulk has a long list of towns lying along the main arteries of travel and in the interior of most of the eastern States, which can be reached by direct shipments. Hereafter these towns have been supplied from Philadelphia and New York. The fruit has been consigned to those cities and re-shipped the following day by express, but by direct shipments, both time and expense will be saved, and this saving will be sufficient to enable the smaller towns to have a constant supply at very moderate prices. By thus extending the market, glut will be avoided and equitable but not exorbitant prices will be maintained. Fruit-growers should therefore no longer delay, but should at once become members of the bureau and stockholders in the exchange. They should organize for the protection of their own industry and not be content to remain longer at the mercy of the men engaged in other pursuits, all of whom have strong organizations for mutual advantages and protection."

Thus it appears that localities hundreds and thousands of miles from the great commercial centers of the northwest, are successfully competing with the fruit-growers of western Michigan. Yet we find many chronic grumblers who depreciate the business and cry, "more fruit will be grown than can be profitably sold!" With our great advantages, suitable climate, soils, and central location, we should be able to compete with fruits shipped from the Atlantic

and Pacific coasts. We grow the best peaches, pears, and apples, and the only method whereby distant competition can be met is by growing more fruit and the adoption of a system of marketing and distribution whereby every man, woman and child living in the vast region contiguous to us, and where the fine fruits of western Michigan can not be successfully grown, may have a constant supply at moderate prices. The time has come when the commercial interests of western Michigan demand a more direct and comprehensive system for marketing our fruits.

The immense and increasing demand for the supply of the city of Chicago will continue to require the aid of the established dealers, but that the Chicago commission system has proved costly, inefficient, and unreliable for the distribution of perishable fruits to outside markets, has been fully proved. But the fruits of Michigan are attracting dealers who buy directly from the growers to supply the many towns outside of Chicago, where our fruits are finding good markets. Heretofore very few inducements have been offered fruit-buyers at our large shipping points. The individual consignments of fruits to Chicago houses have been so long in vogue, and the persistent soliciting by the numerous representatives of the commission system having been so long endured and paid by our fruit growers, it is hard to leave the old beaten track and adopt newer and cheaper methods of marketing a large portion of our fruits. If the cost of soliciting consignments is paid by the commission houses, would it not be cheaper for them if their agents bought the fruits in our orchards and on our docks? Before fruits can be sold on their merits it will be found necessary to grade and stamp the relative quality upon each package, but before buyers can be attracted a system of exchanges must be established by combinations of growers at the largest fruit-shipping points.

The Michigan fruit exchange has endeavored to inaugurate some reforms in the grading and marketing of fruits in the vicinity of Benton Harbor; but having been unfortunate in adopting some impracticable measures, has failed to receive the unanimous support of our fruit-growers. The fruit exchange still lives however, and with the objects now in view should receive the support of all progressive fruit growers at this and other points of large production in western Michigan.

The pioneer fruit growers have made apparent the great possibilities of commercial fruit growing in western Michigan, in the future, and the intelligent efforts now being made toward better systems of cultivation and the wider dissemination of our fruits, must evidently attract more of the lovers of the most ennobling of all occupations to the fruit garden of the northwest, and enable us to supply and control during our season, the markets of the vast region naturally tributary to western Michigan.

June Budding of the Peach.

E. Williams, in the *Philadelphia Press*, gives this information:

The season for June budding peach trees is generally from June 20 to July 10, depending somewhat on the season. The buds are taken from the present season's growth as soon as sufficiently developed and inserted in seedling stocks of the same season's growth. Of course the sooner the buds can be inserted the more growth the young buds will make and the later it can be deferred the larger the stock will be. Any failures can be rebudded in August and September, while fall failures must go over for another season or be lost altogether.

The advantages, if such they may be considered, are a small tree, say one foot high, suitable for distant shipment or making of a variety desired, in one season, while by fall budding it takes two seasons, one for the stock to grow and one for the tree.

A stock fall-budded, if taken up and set while the bud is still dormant, will generally make about as satisfactory a tree and as soon as a June budded one, but it requires a little more careful handling to avoid rubbing off the bud. The roots and stock of a June budded tree are not as large and vigorous as those of dormant buds. Whether one will have the advantage of the other at the end of the season after setting I am not able to say. I will be able to tell this by fall, having set some of both this spring.

Apples for Profit.

J. E. Vaughn, of Pennsylvania, tells the *Germania Telegraph* a bit of his experience in the orchard:

The writer of this was reading a communication in the *Ohio Farmer*, in which the correspondent makes the assertion that, for profit, one bushel of potatoes costs less labor and would bring more money than all the apples that could be raised on the same ground, which set me to thinking, as I had after thirteen years of labor, reared a fine little orchard of one hundred trees, grown on about two acres of land. I commenced figuring on what those two acres had been worth to me the past season, and although they have not made me wealthy in dollars and cents, still I am satisfied with the result, and would prefer it before the best crop of potatoes that could have been grown on the same ground with the same amount of expended labor.

This patch furnished us with pasture for eight calves from about the first of May until after harvest, which was worth at a low estimate forty dollars; it also furnished feed for seven cows, two horses and a colt ten days in June, worth five dollars more. After we turned our calves out the winter apples (mostly Smith's Older) commenced dropping, so we put four hogs in to devour them, and how they did go for these apples, and how they put on flesh, would make the average granger laugh and grow fat! They had no other feed but a little milk from them on till we butchered them (about the middle of October), when they were so fat that they could scarcely get up, and were worth at least ten dollars apiece more than when they commenced to eat those sour apples, or forty dollars for the four.

After butchering, we gathered the remainder of our winter apples, put them in barrels, and stored them away in a cool place until removed to the cellar for family use or sold. We had one hundred bushels of nice apples as your eye ever feasted on, worth here forty cents per bushel, or forty dollars more. Now, count ten dollars more for family use through the season, and we have: Pasture for calves, \$10; for pas-

ture for cows and horses ten days, \$5; fattening for hogs, \$40; 100 bushels winter apples, \$40; for family use, \$40; total, \$135, all from the two acres with about two days of labor expended in trimming orchard and fighting apple tree borer. Who could grow \$135 worth of potatoes as cheaply?

While we were growing our orchard the ground was cropped continuously, with manure every three years. The crops paid for all cultivation and the fruit more than paid for the care of the trees after the third year, to say nothing of the pleasure we have experienced in looking after our trees. Brother farmers, grow an orchard; grow it for pleasure, grow it for profit; but do not grow it to make your boys miserable drunks. Don't convert your apples into elder, to be put into your cellars to stimulate youthful stomachs with an appetite for strong drink. You may be sowing the wind only to reap the whirlwind. There are many recipes by which fermentation in cider may be arrested and thus made a harmless beverage; but without such precautions, its use and the results to which it may lead in the formation of human character, are more to be dreaded than the handling of dynamite.

Keeping Late Grapes.

The mere fact that in grape culture, whether early or late, the productions of the home grower cannot in any way be equalled by any sample from abroad is sufficient to show the necessity of keeping them in good condition as late in the season as possible, inasmuch as late grapes from December till May meet a ready sale, oftentimes at very high prices. In this country very little attention has been paid to the utilization and preservation of late fruit, and we hope that such an important point will receive more attention in the future than it has in the past. In every other country but our own this always forms an important feature in fruit culture for profit, and is always attended with very satisfactory results. With home grown grapes and with the late productions of the hot-house, especially, the first thing to observe is that the grapes retain as much bloom as possible, and that each bunch be kept intact and be prevented from coming in contact with anything that would rub the berries and disfigure them. Various well-known methods have been tried and are still in use, but the two following simple and effective systems may be utilized to great advantage whether the grapes be grown for pleasure or profit, inasmuch as they both admit of the free circulation of an even temperature equally around each bunch, and prevent same from rubbing against each other. In fact among the many methods for keeping grapes in their natural state for use in winter, there will none be found better than the simple ones here described. The first method is to take new soap boxes, or any other box of about that size, and nail cleats on the inside of the ends or sides about one inch from the top, and between them bars at various distances, as required by the varying length of the bearing shoot cuttings. The bars are made by nailing a small strip on top of each. As late as possible cut off the bearing shoots containing the bunches, with pruning shears, and shorten them so that they will go between the end of the box and the top part of the bar, resting on the bottom part, thus hanging the bunches in their natural position. By this method the boxes can be handled without shaking the shoots off the bunches, carried to the light, each bunch examined as winter advances, decaying berries or bunches removed, and the best kept with any moulty taste, as is so common when they are packed solid. Another very simple and inexpensive plan will be found to answer admirably. All that is required are two or more iron or wooden hoops, two lengths of wire to cover two hoops to hold them in position, and some string, and the contrivance is complete. When hung up it is the easiest thing in the world to trim out decayed or useless berries, in fact the stock of grapes can be kept in good condition without even shifting the contrivance at all. At a recent horticultural meeting at Grimsby, a member gave an account of his mode of preserving grapes till mid-winter. He filled cheese boxes with them, and buried the boxes in earth so as to totally exclude the air. He then kept them till February. There is no doubt that the chief merit of this mode was in giving the grapes a cool temperature, excluding air currents, and preserving the coolness unchanged. If the same conditions could be preserved in a fruit-room, they would be kept equally well; but in common practice, they are more or less exposed to air or air currents, and to a changing degree of temperature. For burying them the soil should be compact, free from stone, and with a perfect drainage. But of course this is not so simple nor in fact so effectual as the two suggested above.—*Horticultural Times*.

Plums.

Mrs. F. M. Cooper, in the *Indiana Farmer*, says:

Three years ago I bought four kinds of plum trees: Robinson, Marlana, Blackman and Wild Goose. I left the selection of them to the nurserymen and they only sent one tree each of Blackman, Wild Goose and Marlana. We already had some Wild Goose trees, which we had gotten from an abandoned nursery not far away, and which we had put out the spring before. After I received the trees from the nursery I had some catalogues sent me containing such a glowing description of the Marlana and such praise of its good qualities that I wished I had more of them, and last spring I grafted several Wild Goose trees with scions of Marlana. This spring, our trees all bloomed except the Blackman, and while the Robinsons were literally loaded with bloom and the Wild Goose were not far behind, the Marlana had but about 50 blooms. I do not know whether the tree has to be older to bear well or not, but my experiment in grafting has proved a valuable one in case the Marlana is a shy bearer. Notwithstanding the drought last year my grafts all grew amazingly, and they bloomed this spring and grafts of Marlana on the Wild Goose were as heavily loaded as they could be and the plums on them are almost as large again as the other plums are at this time and I infer that that they will ripen earlier. I shall try bud-ning the Blackman with Marlana this season, and if that is not a success I will graft it next spring, as I think the more the plums are mixed up, the more prolific they become.

Robinson excepted, for they could not possibly become more prolific. The trees I speak of are all five years old, or rather, I suppose, this is their fifth year. No one can go amiss in buying Robinson plums, if they buy any kind. Pear trees of the same age as the plums bloomed sparingly this spring. Those that bloomed were B. D'Anjou and Bartlett; Flemish Beauty and Clapp did not bloom.

The Currant Worm.

It is now some thirty years since white hellebore was first used as a remedy for currant worms, and it is one of those remedies which never fall when properly applied. A common misapplication is to dust the leaves of the currant too copiously, the holes in the dragging boxes or bags being too large. A very fine even dusting is best. J. B. Sickney stated last year at a horticultural meeting in Wisconsin, that he had used in a single year 75 pounds of white hellebore, and he thought he "had the currant worm where he would stay." He had allowed his bushes to grow too high and too broad; and he intended to prune them less large and more open. With very fine holes in his dragging boxes, he could apply any desired quantity of the hellebore; and he hardly ever found it necessary to apply it a second time. He prefers the morning when the dew is on. The eggs are always deposited on the under side of the leaf, but the insects in eating the entire leaf get the medicine. He spent six days in going over his six acres. He buys the hellebore at wholesale for 10 cents a pound; but for an ordinary patch very little is needed.—*Courtesy Gentlemen*.

Horticultural Items.

PROF. S. T. MAYNARD says he knows of no grape of equal quality that is as early as Moore's Early.

THE chief point in a good tomato lies in its substance when it is ripe. It should be plump, solid, sound and juicy.

AS Ohio fruit-growers says the Junco and the Cumberland strawberries are the same, though a great many refuse to believe it.

THE Germania Telegraph says: Cut the plantain plant off at the crown and put on the top of the root two or three drops of kerosene oil. This will surely kill the root.

THE Benton Harbor *Palladium* says C. H. Godfrey finished setting a field of 23 acres to tomatoes, the week ending June 23rd, which he thinks is the largest single patch in the State.

APPLE TREES are "trimmed to death," says J. B. Smith, in the *Ohio Farmer*. Then he goes on to cite instances where unpruned trees lived to a good old age while pruned ones died young.

J. A. FOOTE, of Crawfordville, Ind., has originated a new strawberry which he calls the Wabash. It is of good color, of excellent flavor, fairly productive, and thought to be worthy of general cultivation.

THE *Horn Journal* says: It is a hard matter to take your very largest, finest and most beautiful tomato early in the season and sacrifice it for seed, but when you do it you have got some seed that will probably be worth something.

H. C. MORTON, of Benton Harbor, claims that the first peaches which were shipped from what is now that city, were sent by himself and father, in 1845, they having the first peach orchard in the vicinity. The first shipment of strawberries was made by D. N. Brown in 1861.

CHICAGO is the greatest fruit distributing city in the world. It is the point of consignment of fruits from the South, from Illinois, Ohio, Indiana, headquarters of the Michigan fruit-producing section; and here also California fruits are inspected before being re-shipped to Atlantic and foreign markets.

A COMPANY of Englishmen who are engaged in the culture of tropical fruits in Florida have under cultivation ten acres of pineapples containing about fifty thousand plants. At intervals of twenty feet are lemon trees of choice varieties. The product of a single acre, thus planted is valued at one thousand dollars.

A CORRESPONDENT of *The Husbandman* writes to that journal a bit of his experience with pears, and propounds a conundrum at the close: About twelve years ago I planted a number of pear trees; as soon as they commenced bearing some of the trees had the blight. I tried different things as told by neighbors, but it did no good, the trees died. In 1886 I had two other trees, the fruit was shriveled up and the trees in bad shape as the others. I trimmed off all the affected wood, took the soil away within one inch of the roots about six feet through, took one bushel of lime, one of salt and one of wood ashes; put half of it under each tree and put the soil on top of it with the thought to cure or kill; last year what branches were left were full of pears, natural size, and the trees made a vigorous growth, still I expected to see them dead. This spring the trees were full of blossoms and appear to be all right. Now, what do I, the trimming or the stuff I put on it?

Under the "New Departure" established by The Aultman & Taylor Company, Mansfield, Ohio, whose advertisement appears elsewhere in this issue, you can visit their factory or one of their branch offices, buy a Thrasher, Engine, Horse Power or Saw Mill, save an agent's commission of from \$10 to \$50, and have your railroad fare coming there and going back home again paid.

Apianian.

THE *British Bee Journal* gives the following as a better way of quieting bees than by smoke: One and a half ounces Calver's No. 5 carbolic acid; one and a half ounces of glycerine; one quart of warm water. The acid and glycerine to be well mixed before adding the water, and the bottle to be well shaken before using. A piece of calico, or preferably cheese-cloth, sufficiently large to cover the top of the hive should be steeped in this solution, wrung out dry, and spread over the hive on the removal of the quilt, when every bee will quickly disappear below, and manipulation may be slowly and quietly performed without annoyance from the bees. The same plan is effective in driving the bees out of sections. From unsealed sections they often refuse to budge, but a little blowing through

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the strainer will always dislodge them. All of our sections are thus removed, and we have never experienced the slightest scent or flavor of the carbolic acid attaching to the comb or honey. This unpleasant result occurs only to bunglers, who either use too strong a solution, or do not wring out the carbolic sheet sufficiently dry, and so be sprinkled the comb honey with the solution, and charge the evil result of their own stupidity on those who recommend the process. The strength of the solution quickly passes away, as the acid evaporates when exposed to the air.

Mrs. HARRISON tells the *Prairie Farmer* that she prevents after-swarms in the following manner: "When they hive a swarm, they place it where the parent colony stood, having removed it to one side, and facing differently. All of the bees flying in the fields, will, as they return, enter and remain with the new colony. After a few days, commence gradually to turn the old colony around, until about the time of the young queens, when the entrances will be side by side. Then remove the old colony to a new stand, and all the bees old enough to work in the fields will remain with the new one, making a very strong working force. When the first queen comes out of the cell, she will destroy all the others, and swarming will be prevented. By thus massing all the working force together in one hive during a flow, much more surplus will be secured, than if divided into several hives."

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DETROIT, SATURDAY, JUNE 30, 1888.
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WHEAT.

The receipts of wheat in this market the past week amounted to 25,359 bu., against 31,883 bu. the previous week, and 57,574 bu. for corresponding week in 1887. Shipments for the week were 45,291 against 16,250 bu. the previous week and 43,830 bu. the corresponding week in 1887. The stocks of wheat now held in this city amount to 232,815 bu., against 235,552 bu. last week and 28,583 bu. at the corresponding date in 1887. The visible supply of this grain on June 23 was 24,002,533 bu. against 25,246,006 bu. the previous week, and 35,020,212 for the corresponding week in 1887. This shows a decrease from the amount reported the previous week of 643,565 bushels. As compared with a year ago the visible supply shows a decrease of 14,017,679 bu.

The wheat market at the close yesterday seemed to be a little firmer in tone, but is yet far from strong. The tendency of the market seems to be downward, but may now have touched bottom. Futures are relatively weaker than spot, and have declined to a lower range. The export trade is light, and the only strong point in the situation was a good milling demand from the east, which accounts for the greater steadiness in spot. The week closes with Chicago irregular, but generally weak on futures, and New York firm and somewhat higher than the previous day on spot. Liverpool was steady with a fair demand, and London was firmer.

The following table exhibits the daily closing prices of spot wheat in this market from June 10th to June 29th, inclusive:

	No. 1	No. 2	No. 3	Red.
June 10	94 1/2	91 1/2	88 1/2	85 1/2
" 11	94 1/2	91 1/2	88 1/2	85 1/2
" 12	94 1/2	91 1/2	88 1/2	85 1/2
" 13	94 1/2	91 1/2	88 1/2	85 1/2
" 14	94 1/2	91 1/2	88 1/2	85 1/2
" 15	94 1/2	91 1/2	88 1/2	85 1/2
" 16	94 1/2	91 1/2	88 1/2	85 1/2
" 17	94 1/2	91 1/2	88 1/2	85 1/2
" 18	94 1/2	91 1/2	88 1/2	85 1/2
" 19	94 1/2	91 1/2	88 1/2	85 1/2
" 20	94 1/2	91 1/2	88 1/2	85 1/2
" 21	94 1/2	91 1/2	88 1/2	85 1/2
" 22	94 1/2	91 1/2	88 1/2	85 1/2
" 23	94 1/2	91 1/2	88 1/2	85 1/2
" 24	94 1/2	91 1/2	88 1/2	85 1/2
" 25	94 1/2	91 1/2	88 1/2	85 1/2
" 26	94 1/2	91 1/2	88 1/2	85 1/2
" 27	94 1/2	91 1/2	88 1/2	85 1/2
" 28	94 1/2	91 1/2	88 1/2	85 1/2
" 29	94 1/2	91 1/2	88 1/2	85 1/2

For No. 2 red the closing prices on the various dates each day of the past week were as follows:

	July.	Aug.	Sept.
Saturday	84 1/2	83 1/2	82 1/2
Sunday	84 1/2	83 1/2	82 1/2
Monday	84 1/2	83 1/2	82 1/2
Tuesday	84 1/2	83 1/2	82 1/2
Wednesday	84 1/2	83 1/2	82 1/2
Thursday	84 1/2	83 1/2	82 1/2
Friday	84 1/2	83 1/2	82 1/2

The Government crop report makes the condition of spring wheat on June 1, 92.8 percent, against 87.3 last year, and 95.5 in 1886. The principal State averages are: Wisconsin, 91; Minnesota, 90; Iowa, 97; Nebraska, 96; Dakota, 92. The average condition of oats is 95.4, against 91 last year. These averages have not previously been reported. Compared with last year the acreage of spring wheat stands at 99.1, and of oats at 104.8. The present outlook is for the largest crop ever harvested.

Reports from Minnesota and Dakota state that wheat prospects continue excellent, it being very rare that all parts of the north-west make so good a crop showing as at present. During the cool weather of May and early June the plant thickened, and put out strong roots with an even stand and good color, and the recent hot weather, with plenty of moisture, has started a vigorous growth of plant. There are reports of chinch-bugs from a number of the counties in Minnesota, which may do much harm later in the season.

In Belgium crop prospects have improved under more favorable weather, but vegetation is still very backward.

In Holland the crops are suffering from drought.

In Germany the crops generally continue backward, and rye has suffered seriously from drought, particularly in the north and east. Other cereals are favorably spoken of.

Late advices from Vienna say that harvest prospects in Hungary are most unsatisfactory. The acreage of wheat is about the same as last year, but the plant is in very bad condition on account of the heat and drought in May, being small and yellow. Rye is reported to be in poor condition everywhere.

Reports from Odessa says that the weather has been very favorable for the crops. A good rain had fallen throughout South Russia, followed by cooler weather; and the coming harvest promises to be a very good one, both as to quality and quantity. Receipts of wheat continue moderate, the reserves in farmers' hands being evidently smaller than was thought to be the case in the spring.

The weather in the Northwest is reported

to be bad for wheat, and rumors come to the effect that the acreage sown to wheat in that section has been much exaggerated. In the South and Southwest the rains are damaging wheat and oats badly, especially where the wheat has been cut. A report from Mount Vernon, Ind., says that about one-third of the wheat in that section is in shock, and much of it sprouting, as it has rained for the last ten days, and the fields are under water. The Cincinnati Price Current is reported to estimate no improvement in the crop of wheat as a whole during the week, which means practically none since the beginning of the month.

The following table shows the quantity of wheat "in sight" at the dates named, in the United States, Canada, and on passage to Great Britain and the Continent of Europe:

	Bushels.
Visible supply June 9, 1888	25,359,815
2nd passage for United Kingdom	19,100,000
On passage for Continent of Europe	4,351,000
Total bushels June 9, 1888	48,810,815
Total previous week	36,015,428
Total two weeks ago	48,245,428
Total June 11, 1888	60,574,427

The estimated receipts of foreign and home-grown wheat in the English markets during the week ending June 16 were 686,900 bu. less than the estimated consumption; and for the eight weeks ending June 6 the receipts are estimated to have been 3,591,332 bu. less than the consumption. The receipts show a decrease of 1,214,800 bu. as compared with the corresponding eight weeks in 1887.

Shipments of wheat from India for the week ending June 16, 1888, as per special cable to the New York Produce Exchange, aggregated 1,560,000 bu., of which 840,000 was for the United Kingdom and 720,000 to the Continent. The shipments for the previous week, as cable, amounted to 980,000 bushels, of which 540,000 went to the United Kingdom and 440,000 to the Continent. The total shipments from April 1, 1888, which was the beginning of the crop year, to June 16, 1888, have been 11,060,000 bu., including 4,900,000 bu. to the United Kingdom, 6,130,000 to the Continent. The wheat on passage from India June 4 was estimated at 5,040,000 bu. One year ago the quantity was 4,600,000 bu. The Liverpool market on Friday was quoted flat with light demand. Quotations for American wheat are as follows: No. 2 winter, 65. 61. 66. 74. per cent; No. 2 spring, 65. 64. 66. 74.; California No. 1 65. 64. 66. 83.

CORN AND OATS.

CORN.

The receipts of corn in this market the past week were 12,790 bu., against 22,442 bu. the previous week, and 1,311 bu. for the corresponding week in 1887. Shipments for the week were 6,979 bu., against 1,103 bu. the previous week, and 3,677 bu. for the corresponding week in 1887. The visible supply of corn in the country on June 23 amounted to 12,589,754 bu. against 12,448,543 bu. the previous week, and 10,864,532 bu. at the same date in 1887. The visible supply shows an increase during the week indicated of 141,211 bu. The stocks now held in this city amount to 39,039 bu. against 37,000 bu. last week, and 10,589 bu. at the corresponding date in 1887. As compared with a year ago the visible supply shows an increase of 1,735,222 bu. The market has improved in tone, and to some extent in values also. Receipts have been light, and the demand has shown more activity than for some weeks. Yesterday No. 2 sold at 49 1/2c, No. 4 at 46c, No. 2 yellow at 50c, and No. 3 yellow at same figures. No speculative trading was indulged in, and the market closed firm. At Chicago the market was weak at the opening, but got stronger during the day, finally closing from 3/4 to 1/2c higher than a week ago. Latest quotations in that market yesterday were 47 1/2c for No. 2 spot, 47 1/2c for July delivery, 48 1/2c for August and 48 1/2c for September. The crop prospect in this State was never better so far as corn is concerned. It is not as far advanced as usual, but it came up very evenly, with few missing hills, and the rains are bringing it forward very rapidly. We look for a grand crop this year, and hope farmers will not be disappointed in the outcome of this important crop.

The Liverpool market on Friday was dull and values were lower. The following are the latest cable quotations from Liverpool: Spot mixed, 45. 7d. per cent; June delivery at 45. 7 1/2d., July at 45. 6 1/2d., and August at 45. 7d.

OATS.

The receipts at this point for the week were 21,845 bu., against 12,844 bu. the previous week, and 25,531 bu. for the corresponding week last year. The shipments for the week were only 950 bu., against 1,905 the previous week, and nothing for same week in 1887. The visible supply of this grain on June 23 was 5,658,574 bu., against 5,707,000 bu. the previous week, and 2,903,080 at the corresponding date in 1887. The visible supply shows a decrease of 108,426 bu. for the week indicated. Stocks held in store here amount to 33,420 bu., against 33,592 bu. the previous week, and 27,410 bu. at the corresponding date in 1887. Oats are also doing a little better this week, and prices show a slight advance in both white and mixed grades. The crop in this State will be later than last year, but it seems to be doing well and is growing rapidly now. From conversations with farmers the past week from various sections of the State the outlook seems quite promising. Quotations in this market yesterday were as follows: No. 3 white, 37c; light mixed, 35 1/2c; No. 2 mixed, 34c; No. 3 mixed for August delivery, 35 1/2c; September, 36 1/2c. At Chicago the market was dull and easy yesterday, especially on the near futures, but still slightly higher than a week ago. Quotations in that market yesterday were as follows: No. 2 mixed spot, 31 1/2c; July delivery, 30 1/2c; August, 30 1/2c; September, 25 1/2c; balance of year, 25 1/2c. The New York market was dull and easy yesterday, with values lower than last week. No. 1 white, 40c; No. 2 white, 39 1/2c; No. 3 white, 38 1/2c; No. 2 mixed, 35 1/2c; No. 3 mixed, 34 1/2c. In futures No. 2 mixed for July sold at 34 1/2c; August at 34 1/2c, and September at 31 1/2c; No. 3 mixed, 30 1/2c; and September at 28 1/2c for mixed.

The township of Wales, St. Clair County, has paid, \$136 for 27 sheep killed by dogs this spring.

DAIRY PRODUCTS.

BUTTER.

The supply seems to be rather in advance of the demand at present, and it is a buyers' market. Dealers get rid of stock at the first opportunity, and there is little show for any improvement at present. Values are about the same as a week ago, but with less firmness shown by holders. Dairy is quoted steady at 10c for fair to good, 13c for choice, and 15c for fancy packages, which are scarce. Creamery is doing better, and prices have been advanced to 18c for good to choice. At Chicago the market shows a fair degree of activity, with a fair amount of shipping orders being received, especially from the South. The offerings of choice and sweet were not large and considerable poor butter arrived, which was not wanted except at a discount. Quotations yesterday were as follows: Fancy Elgin creameries, 18c; 18 1/2c per lb.; fine Iowa, Wisconsin and Minnesota, 17 1/2c; 18c; fair to good, 15c; 17c; fancy dairies, 15c; 15 1/2c; common to fair, 13c; 14c; common to fair, 10c; 13c; packing stock, 12c; 13c; lard, 13c; 14c. At New York the market holds about steady, with a little demand for fancy, owing to scarcity. The Daily Bulletin says of the market:

"While the general market is only moderately active, the trade not being disposed to purchase beyond immediate wants and speculators being inclined to operate cautiously, still, the supply of fine goods available is so large, and the demand remains about steady. Receipts were larger, but the general average of quality is poorer, the excessively hot weather of late through the West showing its effects, and a large portion of even some of the finest trucks are showing up summery, and this with so many of the fancy lots going direct into cold storage that actual offerings of fancy are not large. Under grades, however, are more plenty and selling slowly. State dairy is still scarce, and the few lots coming are promptly salable. Imitation creamery and Western dairy in moderate demand and fine lots held steadily. Fine lard packed 15c 1/2c held at 16c, but not salable above 15c 1/2c.

Quotations in that market yesterday were as follows:

	1888	1887
Creamery, State, fancy	20 1/2c	19 1/2c
Creamery, Elgin, fancy	18 1/2c	17 1/2c
Creamery, prime	17 1/2c	16 1/2c
Creamery, good	16 1/2c	15 1/2c
Creamery, fair	15 1/2c	14 1/2c
State dairy, tubs, fancy	18 1/2c	17 1/2c
State dairy, tubs, good	16 1/2c	15 1/2c
State dairy, tubs, fair	15 1/2c	14 1/2c
State dairy, tubs, prime	18 1/2c	17 1/2c
State dairy, tubs, fair to good	16 1/2c	15 1/2c
Western Creamery, fancy	19 1/2c	18 1/2c
Creamery, Elgin, fancy	18 1/2c	17 1/2c
Western imitation creamery, choice	17 1/2c	16 1/2c
Western do, good to prime	16 1/2c	15 1/2c
Western dairy, fine	15 1/2c	14 1/2c
Western dairy, good	14 1/2c	13 1/2c
Western dairy, ordinary	13 1/2c	12 1/2c
Western factory, current make, prime	14 1/2c	13 1/2c
Western factory, ordinary	13 1/2c	12 1/2c

The exports of butter from Atlantic ports for the week ending June 16 were 154,342 lbs., against 115,078 the previous week, and 182,880 for the corresponding week in 1887.

CHEESE.

Prices have declined in this market the past week, while at other points there was an advance. Cheese is selling at a lower range of prices here than at the same date last year, and undoubtedly has reached low water mark, as both Chicago and New York are showing a tendency to move upward. Quotations here are 8 1/2c for full cream Michigan; 8 1/2c for New York, and 7 1/2c for Ohio. Skims are held at 5 1/2c for choice. At Chicago yesterday some irregularity was noted in prices; while fine fancy goods were notably 1/4c higher, under a fair inquiry and a corresponding advance in the dairy districts the market was weak for inferior cheese and such as showed the effects of hot weather. Exporters were buying cheddars. Quotations were as follows: New full creams, cheddars, 7 1/2c; 8c per lb.; do flats, 8c; do Young America, 8 1/2c; poor to choice skims, 3 1/2c; brick cheese, 8 1/2c. At New York cheese has developed considerable strength, with an advance of about 1/2c on all the best grades. The outlook is regarded by dealers as favorable, and the market shows a good deal of activity in both the home and export demand. The Daily Bulletin says:

"Demand not only appears to be good, but is of a general character that brings in pretty much the entire line of exporters, which, in conjunction with a revival of rumors of short sales abroad, and quite a sharp advance in cable quotations, gives rise to much confidence. Indeed, not only have the few available lots landing been promptly taken up, but about all the 'regulars' and a goodly portion of balance of expected supply have been engaged. It is, however, so that there is very little to negotiate upon, and business has a quiet appearance on the surface. A few sales were made at 8 1/2c, but it is as low as any strictly fancy lot can be obtained, with a fraction more actually made on exceptional lots, and some receivers standing for 9 1/2c. Considerable stock on the platforms to-day showed the effect of hot weather, but as usual on an advancing market, buyers are not very critical and selections are comparatively few."

Quotations in that market yesterday were again higher, and now range as follows: State factory, full cream, white, 9 1/2c; 9 1/4c; State factory, good, 8 1/2c; 8 1/4c; State factory, ordinary, 8 1/4c; 8 1/2c; State factory, first skims, 7 1/2c; 7 1/4c; State factory, second skims, 6 1/2c; 6 1/4c; 8c flat, ordinary, 8 1/2c; 8 1/4c; Ohio flat, ordinary, 8 1/2c; 8 1/4c.

The receipts of cheese in New York for the week ending June 23 were 75,879 boxes, against 54,213 the previous week, and 94,113 boxes the corresponding week in 1887. The exports from all Atlantic ports for the same week were 4,850,543 lbs., against 2,609,479 lbs. the previous week, and 5,724,012 lbs. the corresponding week in 1887.

The Montreal Gazette, in its weekly review of the market, says:

"About the only thing that can inspire to certainty in the cheese trade at present is that the market has gathered additional strength, not because there is any legitimate reason therefor, but because speculation for the time being exercises the controlling influence. High prices were paid in the case of to-day, Peterboro having gone up to 9 1/2c, in view of which prices here look reasonably low. There can be no doubt, however, that the market is a strong one and that high prices are being paid in the country. The public cable advanced another 6d. to 4 1/2c, which advance is confirmed by private cables, which quote the market firmer. The private cables, however, are by no means bullish, and convey the impression that the strength here is viewed in an unfavorable light on the other side—in fact, some messages go so far as to predict that no amount of speculation, however lively conducted, can force the majority here to follow, especially as the course of affairs last season, when so much money was dropped, which crippled many firms, when

Utica and Little Falls sold at 8 1/2c on Monday and up to 9 1/2c is paid at a Canadian market the next day, some idea of the complexity of the situation may be conceived."

The Liverpool market on Friday was quoted firm for American colored at 47s. per cwt., and firm for American white at 47s., an advance of 3s. 6d. from the prices quoted early this week.

WOOL.

The interest in the trade has been largely transferred to the interior markets, which are beginning to show a little activity. There seems to be a firmer feeling among wool-growers, and some are inclined to hold their clips rather than dispose of them at present prices. Whether this is best under the circumstances is one of those questions which each wool-grower must answer for himself, after a calm survey of the whole field. The market, under the stimulus of a little competition, may advance sufficiently within the next three weeks to make it pay to hold back for the present. But after the middle of July the dull season will set in, and wool will be very difficult to sell until the middle of September or first of October. That is the usual course of the market each year, and we see no reason why it should be otherwise this season. When the buyers are in the field and willing to buy, as a rule values are very liable to advance, and while this is an exceptional year, an advance of one or two cents would not be surprising. Some manufacturers have buyers out, and must secure a certain amount of wool, and until they get what they want there must be some competition. The market will therefore most likely be higher before July 15th than for some weeks afterwards, or until fall buying begins. We have a summary of reports from interior points in another column, which will be found of interest if you have wool to sell.

At the east the markets are generally slow and likely to be so until the new clip arrives there and is got into shape. Stocks there are very light of all desirable grades so short, in fact, that if it was a usual year there would be an advance all along the line from this cause alone, and with the knowledge that the new clip is a short one there, would be a veritable "boom."

But this is out of the question in the present condition of affairs. At Boston wool is moving slowly, and the market is without any features of interest. Reports say that the receipts of new wool are light and the stock of old wool is very well cleaned up, there are very few good selections of old wool on the market, and the store houses of most dealers are well cleared up of stock. Most of the lots of old wool left on the market now are poor and undesirable, though there are some good lots. The new wool is accordingly receiving the preference of buyers, and is commanding somewhat better prices than the old lots. The tendency of prices in the market this week has been firm on fleeces, and a little easier on territories wool. There has been some inquiry for XX Ohio at the market quotations, but there has been a quiet market for X Ohio and Michigan. Prices show little change.

In this market fine washed is quoted at 20c 1/2c, medium at 20c 1/4c, coarse at 20c 1/8c, unwashed 1/2c, and bucks' fleeces 1/2c off above figures.

The following is a record of prices made up from actual sales in the eastern markets: Ohio XX and above, 29c 1/2c; Ohio XX, 28 1/2c; Ohio X, 27 1/2c; Ohio No. 1, 26 1/2c; Ohio No. 2, 25 1/2c; Michigan No. 1, 30c; Michigan No. 2, 29c; Michigan No. 3, 28c; Ohio delaine, 29c 1/2c; Ohio unwashed and unmerchantable, 19c 1/2c; Michigan do, 17c 1/2c; No. 1 Ohio combing, washed, 35c; do Michigan, 35c 1/2c; Kentucky and Indiana 3/4-blood combing, 36c 1/2c; do 1/2-blood combing, 24c 1/2c; Missouri and Illinois 3/4-blood combing, 24c 1/2c; do 1/2-blood combing, 23c 1/2c; Texas fine, 12 months, 17c 1/2c; do 6 to 8 months, 14c 1/2c; do medium, 12 months, 20c 1/2c; do 6 to 8 months, 18c 1/2c; do fall fine, 13c 1/2c; do medium, 15c 1/2c; do heavy, 3c 1/2c less; Georgia, 25c 1/2c; California northern spring fine, 18c 1/2c; Middle Co. spring, 15c 1/2c; Southern spring, 11c 1/2c; California burry and defective, 10c 1/2c; Australia combing, 35c 1/2c; Cape breed, 36c 1/2c; do clothing, 32c 1/2c; Cross, 35c 1/2c; English 3/4 to 3/8 blood, 33c 1/2c.

Wool in the Interior.

Ypsilanti buyers pay 20 to 23c.

Wool is quoted at 20 to 23c at Flint.

At Plainfield wool is quoted at 20 to 23c.

The Owosso Press quotes wool at 20 to 22c.

Washed wool is worth 22 to 24c at Coldwater.

Washed wool ranges from 20 to 23c at Adrian.

The highest rate at Hillsdale is 25c for best washed.

Average at Tecumseh is 22c. About 20,000 lbs. have been bought.

Wool is coming in freely at Kalamazoo at an average of 23c per lb.

At Allegan rates are 20 to 25c for washed, and 14 to 18c for unwashed.

At Portland the highest price paid so far was 25c for a very choice lot.

At Monroe rates range at 13 to 17c for unwashed and 20 to 25c for washed.

Prices at Ann Arbor get down to 12 to 15c for unwashed, and 18 to 20c for washed.

Howell Republican: Free trade wool is quoted at 20 to 23c, an occasional clip at 25c, and but little coming in.

At Jonesville the one firm buying wool has taken in about 8,000 lbs. at rates ranging from 14c for unwashed to 35c for best for washed. The average clip brings from 23 to 25c.

Jackman Patriot: Considerable wool is coming in and as high as 24c has been paid for extra fine fleeces. The market remains steady at 23 to 25c. About 20,000 lbs. have been taken in.

Jonah Sentinel: The wool market is looking up a little. Twenty-six cents was paid for a small lot to-day (29th) of extra quality. Wool has come in quite freely to-day, and the price has run about 24c.

Pontiac Bill-Poster: Washed wool is bringing from 20 to 25c, but the farmers, remembering their last year's experience, are in no particular hurry to dispose of their clip. Market quotations are 15 to 18c for unwashed; 26 to 28c for combing; 25 to 26c for medium, and 23 to 25c for fine.

Lapeer Democrat: Farmers are backward about selling their wool. It is now scarce, the sheep's back. Buyers are also timid, and are not exerting themselves to any ex-

tent. The general belief among both classes is that prices will advance as soon as the demand among the manufacturers in the east is created. Laps coming in are all very small and principally inferior in grade. Prices, while they are hardly yet set, are ranging at 30 to 25c for washed, and unwashed in proportion.

Constantine, St. Joseph Co.—Wool moving moderately. Mr. Franklin Wells has purchased 21,000 lbs. up to 25th inst. at a range of 16 to 20c for unwashed, and 20 to 25c for washed. Mr. Wells says he never saw so much unmerchantable and poorly handled wool sent in before. This shows that the wool-growers have become discouraged at the outlook, and have neglected their flocks. It is a most unhappy state of affairs, and will cost Michigan many thousands of dollars in loss of reputation and decrease in flocks.

A STATE REGISTER.

In this issue we give place to a paper from Mr. D. P. Dewey, of Grand Blanc. Its suggestions should be thought over by those breeders of Merino sheep who wish to see Michigan occupy that position in the business to which her resources and the enterprise of her breeders entitles her. She has paid tribute to Vermont for years, but that is no reason why she should continue doing so. The Vermont Register is losing ground with those breeders who wish to progress rather than go backwards. The last volume is as nearly valueless as such a work can well be, while the Michigan Register is taking advanced ground and, with the support that should be accorded it, and which its merits as a record entitle it, is bound to become the model which other States must

Poetry.

THE MILLER OF POSSUM RUN.

Over and over, all day long,
The mill-wheel steadily goes,
The miller is white with flour and meal—
As he brushes against your clothes.

O grinder, what is thou to-day?
He replies with a wink, "Ground wheat."
But sometimes customers think it is mixed
With a little allowance of cheat.

The miller has a kind word for all
And wants little more than his due,
He takes your grain and returns your grist—
Only lacking a notch or two.

Around and around, all day long,
The mighty millstones go,
The miller, says the miller, "Is bound to come up"—
His sometimes rises slow.

High over the rumble of the mill
You can hear his merry laugh
Or for 'e, as he measures out your grain—
And gives you a good deal of chaff.

"It is best to be fair and square," says he,
"If we want to reach the goal."
We shan't live for each other's benefit—
And take out a little more toll.

"Good luck go with the flour," he says,
"With plenty of bread on the shelf."
The miller must feed the world, you know—
Which also includes himself.

With a lighter load than that they bring
The neighbors trudge away,
O miller, may your load be as light
When your toll you come to pay.

—A. W. Bell, in Toledo Blade.

REFUTED.

"Anticipation is sweeter than realization."
It may be: yet I have not found it so.
In those first golden dreams of future fame
I did not find the happiness which came
When I was crowned with triumph. Now I
know

My words have recognition and will go
Straight to some listening heart; my early aim
To win the idle glory of a name
Pales like a candle in the moonlight's glow.
So with the deeper joys of which I dreamed,
Life yields more rapture than did childhood's
fancies.

And each year brings more pleasure than I
waited.

Friendship proves truer than of old it seemed,
And all beyond youth's passion-hued
romances.

Love is more perfect than anti-ipated.

Miscellaneous.

A LITTLE BROWN WITCH.

She was an indescribably lean, little brown creature, with elf-locks hanging around her preternaturally old face, where the eyes, all "live and awake, looked out of their places," bright as those of Browning's gypsy witch:

As if she could double and quadruple
As pleasure to play of either pupil.

The tan of all the sun in the sky and all the sheen of the sea was on her skin, and a melancholy like that of the Sphinx seemed to have turned the face to stone. She sat in a little hut by the shore, whose door was open; and she had a little dead child across her knees.

Of course we looked in and then we went in.

"You poor child!" I said. "Tell me, what is this? What does it mean? How terrible for you to be here all alone. Is there nobody?"

"That's just it," she said, in a low, hollow tone, as if talking to herself, "nobody."

I knelt down beside her and looked at the little dead three year old baby—just our Effie's age—putting my arm around the elder one as I did so.

"You can kiss her if you want to," said the child, with a sort of gasp. "She was so sweet."

I didn't want to, but I kissed her, and then I kissed the little mother holding the dead baby on her knee. She looked at me a moment with those fevered eyes, and then she leaned forward and rested her head on my shoulder.

"There's nobody to kiss me," she said, faintly, "since the day the wave tumbled over father and he never came up. And the baby had fever, and he'd gone up to town for some medicine, and I was looking out for him, and I saw him and the wave. It's stormed a week since. Of course it stormed. The sun couldn't shine if it would. There's nobody here. And there's been nothing to eat. And—"

"And what are you going to do?" I interrupted.

"I'm sitting here till I die, too. 'T won't be long, you see," she said faintly, "looking up and leaning back in her chair again. 'I'm so little it won't take so long to starve as it does sometimes. I don't feel so bad, you know, because I shall see them so soon now."

"Starve!" I cried. "My dear child! What do you think of such a thing for?"

"There's nothing to eat," she replied, in a dull tone. "There hasn't been these two days. What else shall I do? And I'm—I'm glad of it. It's the only way I can have my dear people again!" she said, with a little dry sob. "And of course God meant that I should, or he would have sent something. I couldn't leave the baby."

"He has sent something," I said, crying myself. "He has sent my husband and me. You shall go home with us." And I took the poor baby and laid it on the bed, while the other child looked at me with bewildered eyes. I proceeded to unpack our lunch basket and light the spirit lamp, for Ralph and I had strolled down the beach for an old time picnic by ourselves, and to heat some milk and water, which I made her drink. "It's too late for the baby," she said, holding it at a moment. I sat beside her, and in a little while made her drink some more. And then, as she seemed falling asleep, I went to the door, where Ralph waited, for a whispered consultation about the baby.

"No, no," she said quickly, all alert again, "baby can be buried where her father was, in the middle of a wave. We can row out there in a boat—the boat came ashore, you know. Baby would like that best." She said then, quickly: "She might, you know, she might sink and find her father's arms—he loved her so." How widened and old and preternatural she looked as she was saying this in her thin and feeble voice! But of course we could not think of any such burial as she proposed, and the

baby had a little funeral that outraged none of the proprieties. And as no one in the region roundabout knew anything more about the children and their father than they had come there and lived some months in that lonesome hut, out of sight of any but the sea gulls, when we went away, which was in a couple of days, we took the little, lean, brown creature home with us.

"For what else is there to do?" I said.

"I don't know as there is anything," said Ralph, dubiously. "And the little wretch relies on us so that I don't suppose we can put her off into an institution, as Aunt Juliet suggests."

"No; it would not do. Don't you see the child is full of a certain sort of refinement and strange idealities? Didn't you see her rocking Effie in the twilight? Effie takes the place in some fashion of that baby of hers. She sings the sweet old English ballads that I can't imagine where she picked up. And did you notice how careful she was to make up the little parcel to take with her? What do you suppose there was in it? Something she called her mother's wedding lines. And a little bundle of letters, and an old photograph of her father, and a ring, just a plain gold one, that his father gave him when he was a boy, and that he used for her mother's wedding ring—and the mother died, poor young thing—and they were so poor he sold everything else, but he wouldn't sell that. She said all this as she was putting up the parcel. I haven't asked to see anything in it."

"That is right. Respect her reserve. And by and by she may forget the thing. I hope so if we keep her. And it looks as though it were meant we should."

"Well, if ever there were two young fools who ought to have guardians appointed," cried Aunt Juliet, coming over later. "Of course you can always find a leading of Providence where you want it. But I hope you are going to keep her in the kitchen and make her of some use?"

"You don't mean to send me away?" cried a voice from behind us, and Nina—that was the name her father called her, her mother's pet name—stood there, tip-toeing, her great eyes glowing and darkening, her hands wringing one another. "You can't mean to send me away when you've brought me here, when I've got nobody but you, when I love you so!"

And the tears that her great despair and neighborhood to death had not called forth plashed over now in large drops. "You know," she said, "that I will take care of Effie and run Rose's errands and sew with her all day long, and I will teach Effie her letters, and I can wipe dishes and pick over berries, and I can dust and feed the cats and put ice on your headaches and air the newspaper—"

"For goodness sake hold your tongue, child," cried Aunt Juliet. "I should think she would be machinery. Of course you'll make yourself useful and stay in the kitchen and earn your living. And I expect," she said warningly to me, "that she'll let you out of house and home. The idea of taking in every beggar's brat you come across!"

But Nina had no idea of staying in the kitchen. On the contrary, wherever I was, she was, and I soon found out that she considered herself on the footing of a little or elder daughter.

For a while now Nina was very quiet; sometimes she cried a little by herself, but quite gently, over a doll she played with; sometimes she came and stood by me, hanging an arm around my neck, silent for a long while; sometimes she sat in the big window and crooned her old ballads to Ralph, for whom she had developed an extravagant devotion. "He is lovely, isn't he?" said she. "Oh, if I could only do something for him! If it would do him any good to walk right over me I would lie down under his feet—indeed I would."

"That is very strong language," said I. "I can't see how that would do him any good, and it would hurt you."

"I should want it to hurt me," she exclaimed, passionately. "I can't do anything for him except to be hurt!"

But after a season this feeling seemed to abate somewhat; for Nina went to school, and the new interest and excitement there diverted her, till she began to hate her lessons and defy her teacher, and presently to beg to stay at home. And when Ralph told her he was his little girl, she declared she was nothing of the sort, but was his little servant. Aunt Juliet had said so, and she needed and would have no education at all.

Of course this phase ended by the teacher giving her a reprimand before the other children, and with that she became, as you may say, uproarious. She after that was more likely to be found wading in the river up to her neck when the school bell rang, or swinging in the topmost bough of a tree, or walking around the eaves of the house with her arms balancing her steps than picking up her hat and books. Once, indeed, having her school luncheon strapped over her shoulders, she stayed up in the tree all day and all night in spite of my efforts. Ralph happening to be absent, and I felt that she might not have come down at all if she had not seen the doctor call for Effie—of whom she was passionately fond and into whom she had confidentially told me she was sure the soul of the little dead baby must have gone—which sight brought her down so incontinently as to bring a multitude of bruises and scratches with her. Neither entreaty nor force could bring her to leave the room after that till Effie was pronounced to be out of danger.

It was no use to tell her that she pained us by her conduct—it was we who pained her. It was no use to tell her that she was disgracing the name that we had given her; she said we could take back our name and she would take another. And she could be brought to see no use in book learning or in demure behavior or in any obedience that she did not see fit to render. The years were soon a long struggle for her. I don't know how she managed to learn anything during this course, unless she absorbed it at the pores, although she listened, to be sure, pretty intelligently in the corner of the hearth, when Ralph read aloud evenings.

"It's just as I said," declared Aunt Juliet, who, being the person of means in the connection, took the liberty of saying what she liked. "You have taken a little hussy that you don't know anything about into your hearts to break them."

Nina was still, at fifteen years, a little, lean, brown thing with owl's eyes, and as

farouche and shy as any thing of the woods, when Lance came home. Lance was Ralph's brother, and had been away the naval school and then sailed round the world, and had not been at our home these six years. "Well," he said, "what imp of darkness is this?" And she heard him. And nothing could bring her into the same room with him during the whole time of his stay. But by and by she hung over the balustrade to listen to his voice, or she hung like a firefly from window to window to watch him if he strolled around the river path and behind the fringe of birch and beech with Flora Denny, our pretty neighbor. "I always did hate a white girl!" she muttered. "I like dark people," she said. "Like you and me. We are alive!"

Once or twice during Lance's stay Nina went into the kitchen, and with a strong hand compelled old Rose, the cook, to show her how to prepare certain dishes, and she watched outside the kitchen door of the luncheon room to learn of their reception, which was tolerably favorable. "I always knew I could do it if I wanted to," she said. And then she might have been observed bent over work in hidden corners till she had finished a little purse of steel beads. "Here," she cried over the banister, the morning Lance was going away. "You take this. There's a lucky penny in it." He looked up and saw her bending there, the strangest lady, so serious and dark and witchlike, that ever sent knight on his devoirs.

"I will take it," he said, "if you will come down and give it to me."

And step by step she came down, as if he drew her forward and some unwilling power held her back, and laid the little brown head of a hand in his. And then Lance drew her a little nearer, and bending from his lordly height to kiss me good by, turned and bent and gravely kissed her, too.

In another instant she had broken away and had raced out into the orchard and hidden herself in the long grass; and when she came in, some hours afterward, she announced that she was never going to wash the spot upon her face that Lance had kissed.

"That girl is a fool," said Aunt Juliet, who had dropped in. I don't know whether the fact that her foot caught in a croquet wicket and threw her down on the way to the gate afterward had anything to do with the remark or not.

Shortly after this Nina said: "You know I always said anybody could do anything if they only wanted to. I wanted to cook those things; and you know what he said about them. I wanted to make him a purse, and there wasn't a knot in the silk. Now I want to learn French and music and all that white thing Flora Denny knows. And you'll see."

Not all at once, of course, did we see the desired proficiency, but she had a natural aptitude for music and for art, and presently a strange quietude seemed to have fallen on the house, and now, instead of a little brown imp, there was a slender, dark young girl, whose angles were turning into curves, on whose olive cheek a ruddy tint was blossoming, whose lips were a bow knot of scarlet, and whose eyes—there never were such eyes out of a gypsy's head! The swift capriciousness of movement had become a sort of fishing grace, indifference to dress had changed to a wondrous taste for the picturesque, and carelessness for the feelings of others had vanished before her old intense tenderness for one and all of us.

"She has been going through the chrysalis stage," said Ralph. "And what a gorgeous butterfly she is going to be!"

"She is not going to be a gorgeous butterfly at all," said I. "All this has resulted from some dream of Lance. And Lance will marry her white enemy then, of course, and she will saddle into a little brown moth of some sort."

"Nonsense," said Ralph. "Lance only opened her eyes. Every girl, every boy, has to have a half dozen chances before the real one comes along. Don't you remember 'Romeo's Rosalind'? Yes, Lance will marry Flora, and much joy go with them. But our Nina shall do better!"

Ralph was right. One day Flora came in quietly with a letter in her hand, and told us in her gentle voiced way of an engagement to Lance; and if Nina had had a dream, the dream was over. But I was not at all myself; Nina did not saddle to any extent nor for any length of time, and before we could account for it ourselves she was brighter and sweeter and even gayer about the house than any household fairy.

"You had better call me your Brownie," she said, when I began to perceive from how much she looked out for Ralph's comfort, how absorbed she was in Effie, how she beautified the house with her pencils and her flowers, what a bit of vital heart fire she had become.

But while this peacefulness was developing at home there was trouble brooding abroad. Ralph's business was in a sad way, and creditors were cruel, and disaster was impending. And one day it came. The great operation on which, outside of his legal business, Ralph had been engaged so long fell with a crash, and all our hopes of the future and all our certainty of the present fell with it. Everything was to be given up, and with all the rest our home, that had been such a nest of happiness for all our married years.

Of course I did what I could to hold up my poor Ralph's hands, and it was settled that we were to go into lodgings and live in the smallest way possible while he was picking up some practice again, taking a desk in an office that was open to him.

"Now," said Aunt Juliet, "you see what it is to have burdened yourself with another mouth to feed and back to clothe!"

"Nina is no burden," said I. "She is a blessing. She is an angel we entertained unawares."

"Oh, yes; she's all your fancy painted her, she's lovely," said Aunt Juliet. "But she's got to live!" said Aunt Juliet. "And you've got to find her means. And I don't see how you're going to do it without starving and stripping yourselves. Surely you can't afford to keep a cook now; and I'll take Rose off your hands. I've always wanted her."

Of course I gave Rose the option of going to Aunt Juliet. "No, I thank you, ma'am," said Rose. "I wouldn't live with your

Aunt Juliet, ma'am, not if she had the only mansion there was in heaven!"

"I always did you I was your little servant maid," said Nina. "And now I will either go out to work some way or stay and do your work here. I can't do too much for you. I can't do too much for him! Do you know, oh I thought, for just a little while, that Lance was the only man in the world! Lance isn't a shadow beside him! There isn't a soul alive as his, and you were made for him! Oh, if I was only good for something now!"

"We will all work together," I said, thinking best to disregard her enthusiasm lest it became hysterical. "The landlady and the second girl have gone, and it's just as well; for we shouldn't have room for them in our few lodgings"—and then it was I who was hysterical, for I broke down crying, the thought of leaving my dear home being more, just then, than I could bear. The appraisers had been there a day doing everything, and it had all seemed such an intrusion and profanation that it had been too much for me; and I wondered, when an apparently accidental bucketful of water was dashed from an upper story window as they were going away, giving them a thorough wetting, if it had not been too much for somebody else and the old spirit might not be again taking possession.

"It made something flash fire inside of me like sparks," said Nina, "to see those men turning over our dear things. Oh, why can't I do something to earn money in a lump? If there were only a millionaire for me to marry, I might marry him, you know—I'm very pretty."

"Oh, Nina!" I exclaimed. "Is this the end of all my teaching? But I had to laugh in the midst of my troubles. But Nina did not look at it as I did, the affair, anyway, being in the nature of a myth."

"I'd marry him, you know, in a minute if I could," she said, "and give him money all to you. If I had Aunt Juliet's money do you suppose I'd take your cook? Do you suppose I'd let them take your house? No! I had one quarter of the bonds she has packed away in that safety deposit box of hers I'd make life so gay for you all that you'd think you'd died and gone to heaven! And he should never have a care again! And have Effie to grow up without an education—heaven! I'm so glad I learned something at last—she can have all that now! She couldn't have everything, the darling, if I had it, and you and he should have the rest! I'll awake nights and picture how I'd spend a fortune if I had it, and spend it all on you."

Well, I felt such love more than repaid me for all the trouble I had with her from the hour I found her in the little fishing hut on the shore; and I told her so, and we had a very enjoyable cry together.

I was sitting that night rocking myself disconsolately by the low firelight, for I had already begun to economize in the matter of lamps, when Ralph came in from out doors and sat down opposite. Nina was on a sofa behind a screen, with Effie lying back in her arms, telling stories in a low voice to the child, who had not yet outgrown them, and I marvelled a little to hear her and think it was my bit of wild-fire tamed.

Ralph sat looking in the fire and occasionally throwing a handful of cones and watching the swift, fragrant blaze they made. "I suppose we shall have to go next week," he said. "I've been over to look at that little flat. I suppose it will do. Isn't the place for you?"

"Oh, anywhere is the place for me," I said. "that you can manage to put me in."

"Four rooms in the heart of the town," he said, bitterly; "no view from my window but one of equal back yards; no river, no great hemlock trees, no pine cones to burn on open fires—just the barest getting along until we can do better—if we ever can."

"Well," I said, "it might be worse. We can be very happy if we are only well and have each other."

"Yes," he said, "yes. But it is hard to leave all we have worked for these dozen years, all that is dear to us; hard, too, to have slipped by so nearly as I have done to a vast fortune—as that would have been but for—it had not been if I had only seen—but there, there, the more one thinks the worse it grows. The world is all alike. Somebody else is slipping tolerably near a fortune with less likelihood of getting it, by what I heard in the office to-day. One of those English fortunes falling due to some unfindable heir."

"I thought the things were all frayed," said I. "The great fortunes in the Bank of England belonging to people over here."

"Oh, they are, very likely," said Ralph, absently. "This wasn't one of that sort. This is the case of an absent heir—the son of a man named Strachan—Reginald Strachan—a man of great wealth in London, an East India merchant, whose son married some young singer or other and ran away with her—one Rowena—Rowena Dyar. They have been traced to this country, and it is known that a child was born and named for her mother, who died presently. And all further trace of him is lost. The case has just been sent to our office by the English solicitors. If he is dead there is a fortune of some hundreds of thousands of pounds belonging to that child, Rowena Strachan."

Suddenly there seemed to be an earthquake in the room, the screen went over with a thud, and Nina, still grasping Effie, had sprung forward and stood between us, her eyes ablaze, the color flushing her dark cheek, her lips parted. "Rowena Dyar?" said she. "That is my mother's name! It is inside the ring—she said my father had put there with his own—it is in her marriage lines. And Reginald was her husband. It's all about them and the father, the cruel, cruel father, in the letters. Oh, you can prove it all! It isn't called Strachan, as you said; it's called Strawn, you know. And Nina was her pet name. And that child is the mistress of a fortune of thousands of pounds and they're yours! All yours! Why, that's just as plain as day!" she said, without regard to grammar.

"That's me!"

"It is a fact," that Lord's Sarcophagus does cure scrofula, salt rheum, and other diseases or eruptions arising from impure state or low condition of the blood, overcomes that tired feeling, creates a good appetite, and gives strength to every part of the system. Try it.

A Burial in the Wilderness.

A correspondent of the Toronto Globe tells us a little about life in the woods in the Ottawa valley, in Canada, among the woodmen:

In the centre of the Shuyun R'ver, in the County of Pontiac, there is a huge rock splitting the swift current; the story goes that one Pere le Blanc made a suicidal leap from an overhanging cliff into the river, and the rock from which he jumped broke and followed him; the place is accordingly called Pere le Blanc Chute. On a clear winter evening a weird sight is sometimes presented in the moonlight; when out on the frozen lake one sees a pack of wolves looking black against the snow, gathered to feed on the old which is thrown there. But the prevailing sensation to one unaccustomed to such wild surroundings would probably be that of loneliness. When such an one does find it necessary to sojourn in these places he usually lays in a plentiful supply of reading matter and tobacco, as slight antidotes for loneliness. As one can understand from a case that actually occurred, even for a shanty-man it is a lonely place to die in. The loneliness and isolation of the case may be understood from the fact that no one even at the shanties knew anything about the man, what his name, or who his friends, or where his home might be; and in the absence of a priest he could only mutter to himself in his own patois his "Hall, Mary, full of grace." Absolutely without attention, except an infrequent call from a book-keeper at one of the stations, he died. Then they hewed out a log just as they sometimes hew one out to make a rude boat, and improvised a rough coffin of it, into which, with the body, they placed the violin and all the little possessions of the man. The only burial service was performed by the young book-keeper, who read a chapter from the Bible while the shantymen stood solemnly round with uncovered heads. Over the grave they fashioned a rude cross of hemlock boughs. And there amid the silence of the forest he slept—amid the silence of the forest now bleak and blighted by the touch of winter, as he is by the icy touch of death.

Rough and untutored as these shanty-men are, it is not at all likely that their minds should be altogether closed to the sentiment of beauty. Indeed, they have a sort of literature of their own; grotesque enough, it is true, but still a kind of literature. Sitting round their fires, as we do by our more conventional grates, they tell stories; and one can imagine the picture made by these bronzed and sturdy men, their eager faces ruddy in the red firelight. They used to tell a story, amusing to us, of the adventures of a ship, which, to borrow their own expression, was the "finest ever seen by the eyes of man," and which conducted a hero through many wonderful exploits in which he encountered many things which have the reputation of being the "finest ever seen by the eyes of man," and of course, involves a heroine as sweet as the maple sugar they put in their tea, and who, we are assured, was the "finest ever seen by the eyes of man." The story is probably regarded as the "finest ever heard by the ears of man." Occasionally one of these story-tellers will possess considerable ability.

The Red Cross Association.

The Red Cross is a confederation of relief societies in different countries, acting under the Geneva convention, whose aim is to ameliorate the condition of wounded soldiers in the armies in campaign on land or sea. The idea of such a society was conceived in the mind of M. Henri Dunant, a Swiss gentleman, who saw the battle of Solferino, and became impressed with the need of more efficient and extended means of ameliorating the conditions consequent upon war. Once a year in the city of Geneva is held a meeting of the Society of Public Utility, corresponding to our Sanitary Association, and the Society of Social Science, and to M. Gustav Moynier, president of that society, was presented M. Dunant's theories. The latter gentleman also published a little book called "A Souvenir of Solferino," wherein he depicted the touching incidents and horrible realities of warfare. The battle was fresh in the minds of the people, the book was well written, was extensively read, translated into different languages, and awakened the interest and enthusiasm of the people. Mr. Moynier called a meeting of his society for discussion of this question, which resulted in their appointing a convention in Geneva of delegates from every civilized nation to consider this subject, and arrange some international compact or treaty compatible with the articles of war belonging to the several countries. An invitation was extended to Mr. Seward to send representatives from the United States, but, surrounded with the realities of a threatened Constitution, and the horror of a bitter civil war, he had little time to consider Utopian conventions for the advancement of humanity. However, Mr. Charles Bowler, an American banker of France, and Mr. Fogg, United States Minister to Switzerland, constituted themselves delegates to this convention, which was held the 26th of October, 1864, and which, after a deliberation of four days, resulted in the arrangement of a set of resolutions whereby the "Ambulance and military hospital in battle shall be considered neutral, and as such shall be protected; persons employed in hospitals and ambulances, surgeons, chaplains, servants, etc., shall be also neutral, and even after occupation of the field by the enemy may continue to fulfill their duties and not be retained as prisoners; inhabitants of the country shall be allowed to bring help in the relief of friend and foe alike; houses opened for the reception of the wounded shall be protected and relieved from the quartering of troops; commanders-in-chief shall return wounded soldiers to the outposts of the enemy if desired, and send back all disabled soldiers when recovered, to their own country, and the evacuating troops of a field shall not be fired upon while in retreat." This treaty was signed by twelve nations in less than four months, and now all civilized governments (thirty-two in number) adhere to its regulations.

It was deemed expedient to adopt a universal badge, which sign shall be recognized by every nation, and in honor of the Swiss Republic, where the convention assembled, and whose banner is a cross of white upon a scarlet ground, was adopted the emblem

of red and white with colors reversed, a cross of scarlet upon a ground of snow. Something of its potency is illustrated in the fact that if the general or any officer of soldier of a victorious army lay violent hands upon the humblest hospital servant of the enemy, or little boy who carries water to his sick lieutenant's tent wearing the scarlet cross, he has broken an international treaty, and at the risk of his head.

The whole of Europe is marshalled under the banner of the red cross, and wherever the din of war is heard, is planted the white banner that wears the blessed sign of relief. The ensign waves in Siberia, on the Chinese frontier, in Algeria, Egypt, and Oceania.

The Society of Utility was made the International Committee of the Red Cross, with M. Moynier as President, a wealthy philanthropist of unlimited means, great earnestness of purpose, singleness of object, and strength and integrity of character, devoting his entire life to the society he represents. The first act of a country after giving its adhesion to the treaty is the establishment of a national society to act in accordance with its provisions. The national societies form others as associate or auxiliary societies, the purpose of their members being largely to perfect themselves in every branch of humanitarian work connected with the prevention or relief of the sufferings contingent upon war. Their second object, and also a very important one, is the raising of funds for the sudden needs of the society, and a yearly fee is exacted of each member, but outside of this the contributions are all voluntary. Besides the collection of funds, necessary material is collected for sanitary service, clothing is made, bandages, lint, etc., prepared, practical improvements and inventions in all sanitary relief apparatus are made and perfected, and training schools for nurses are established, whose members upon graduation seek employment always with the understanding that with the first note of war they go to the front.

Owing to its isolation from the warring nations of the globe, the United States was the last to join the society. In 1890 Miss Barton laid the matter before Congress and procured the passage of a bill agreeing to the conditions of the association, which the President readily signed. The presidency of the society was offered to Mr. Garfield, but he nominated Miss Barton to fill the place instead. The original purpose of the association was simply to relieve the sufferings by war, but through Miss Barton's influence its purpose has been enlarged, and now includes relief "in war, famine, pestilence, and other national calamities." It has therefore contributed to the relief of the sufferers by the Mississippi floods, the Michigan forest fires, and the Texas drought, and in this way testified to the worthiness of its purpose.—Inter-Ocean.

Waste-Basket Advertising.

The main object of advertising is to attract the attention of some certain class for a certain purpose, and to do this in the most economical and efficient manner ought to be the study of every business house with goods to sell. Half a century ago the principal reliance to effect this object was in circulars, and it still remains so with many, notwithstanding the fact that large advertisers of every class have discarded this old-fogy method as being expensive and wasteful, when the benefits to be derived from such advertising are considered. While the mails are more burdened with circulars at present, perhaps, than at any previous time, it is not because such advertising is considered the best, but simply because it is not considered at all. A merchant or dealer has something to sell, and his imitative nature induces him, nine times out of ten, to follow the example set him by others in the same line of business, without a thought of the probable effect of such advertising will have, or its relative cost compared with more modern methods. Successful advertisers, however, have long since learned that what is termed waste-basket advertising does not pay. It has become a habit with many business houses to continue this old-fogy method of advertising by circulars sent through the mails, because they do not stop to take an account of stock and figure out the profits as they do in ascertaining the profit on their goods. Others, again, are well aware that it is money thrown away to advertise in this manner, but think they must continue to do so because others in the same line of business keep up the practice. To have printed, in even ordinary style, 5,000 to 10,000 circulars, fold them, and put them in inclosures, direct them, and with a one-cent stamp on each, send them by mail, will cost at the least calculation from \$15 to \$18 per 1,000, providing a list of names is prepared to send them to. This would be from \$75 to \$90 for 5,000, or \$150 to \$180 for 10,000 circulars. And yet the house that sends out just such a batch of advertising for others to read has a waste-basket in its file that is the daily receptacle of all unsealed circulars which are received, in many instances even without opening. If they suddenly awake to this fact, they think a more costly and elaborate circular, sealed and mailed with a two-cent stamp, will have the desired effect, and the cost for the same number of circulars is nearly doubled; but, while this delusion is a plausible one, it still remains a fact that they do not pay in proportion to the money invested, when contrasted with legitimate advertising in trade or general newspapers.

It is now generally recognized by advertisers of large experience, that there is but one form of advertising that can be relied on to bring in a reasonable return on the investment, and that is newspaper advertising. The same amount of money annually expended in sending out circulars to the trade will undoubtedly pay better in persistent advertising in some journal reaching that trade. While the circulars, in most cases, are dumped into the waste-basket with a ceremony, the trade paper is looked for and read, and when goods are wanted the advertising pages become the reference book in which search is made for the desired article. The trade paper is a regular and welcome visitor, while the circular is a nomad that is barely recognized. Outside of the regular trade-catalogues and price-lists, which are kept for reference, all other forms of advertising matter sent through the mails, even by the largest houses in any line of trade, engage but little attention from people who receive them.—Stores and Hardware.

In a German Hotel.

When a man announces in a German hotel that he has made up his mind to take a bath, a wave of incredulity, baffled wrath and alert resentment, sweeps over the establishment. The chambermaid rushes after the waiter, he brings the manager, and finally the proprietor comes up and looks the guest over with an air of dim melancholy.

"Why," he asks sadly, "do you take a bath tonight?"

"Because I want it."

"Here—in this room?"

"Of course. I don't propose to go on the roof of the hotel."

"Oh, well, all right," the proprietor says, with the air of a man who washes his hands of a transaction that involves a suspicion of murder at the very least. "If you will do it it must be done. Hans, a hot bath for 44."

The waiter mutters something beneath his breath about the eccentricity of foreigners and goes sadly away. Presently he looks in again and remarks that it is after nine o'clock, and it will take two hours to make preparations. Forty-four—what happened in this case to be an English merchant occupying an adjoining room to mine—threw a book at him, came into my room in pajamas and seething rage, and delivered an eloquent oration about the recalcitrant spirit with which the Germans regarded water.

"I'll get the bath," he announced, as he strode into his room with a scowl, "if I have to call in the aid of my minister."

The utmost confusion reigned during the next half hour. The one idea that seemed to animate everybody in the hotel, from the chef to the chambermaid of the top floor, was the necessity of stopping the rash project of No. 44. Every effort was made, but the result was failure, grim and complete. About ten o'clock the puffing and grunting of a body of men was heard on the stairs and presently two waiters and a watchman staggered in with a bath tub, which consisted in equal parts of green paint, cast iron and rust. They dropped it in the middle of the floor, cursed their fate with the whole soul, Teutonic enthusiasm, took off their coats, pulled up their sleeves, and fell to work with several other attaches carrying water up from the sub-basement to the third floor in small tin pails.

By this time half the guests in the hotel had their heads out of the doorway, making large vocal efforts to find out whether the uproar meant a fire or another dead emperor. When they found it was an Englishman taking a bath at that hour of the night, the excitement was more intense than it would have been as the result of a new death at the palace or a genuine conflagration.

Herrings Instead of Bouquets.

I have a vivid recollection of acting in a temporary theater built on the beach of a small fishing town somewhere in the North, and will relate an incident which abruptly terminated one of my performances. The floor of our dressing room was simply the sandy shore, and there was a wooden plank close to the table, upon which I stood, preparing for a Highland fling to be danced by me.

Suddenly an unusually high tide took place, and the water made rapid progress into this room, so I hurried up stairs, but not before my thin shoes had been well filled with sea water. The reader who may know the dance-step of a fling will be able to imagine the effect my wet shoes had upon the stage. I must have caused a great sensation among the fishwives, who, unable to control their ecstasies, threw herring on the stage with such exclamations as "The bonnie wee bairnie!" "She's just like me Maggie!" "Oh, the dearie!" "Piling her a herring!"

I intended to take no notice of this eccentric form of bouquet (so horrified was I), but some one called out from the wings: "Pick them up and acknowledge them, or there will be a riot." So, frightened out of my life, I forced an awkward smile upon my face, gathered up the herrings, which slipped from my hands as soon as I took hold of them, and got off the stage as quickly as possible, my small arms being laden with these fishy offerings. The dance was loudly encored, but before I had got half through its repetition an alarm was raised. "The sea is on us! The sea is on us! Save the wee lassie!" The lights suddenly went out, and the scrimmage was awful. I was seized and thrust into a large fish basket (I smelt it) and carried off on some man's back, who, I believe, jumped on the stage to rescue me. I can smell those herrings still, and have never cared for fish since that experience.—From an English Actor's Reminiscences.

Close Shave with a Tiger.

As we walked along through the jungle I failed to keep up with the other members of the party, who had got on some distance ahead, when suddenly I heard a rustle in the underwood, and almost at the same moment an enormous tiger presented himself and prepared to spring upon me. I immediately presented my rifle and fired. As ill-luck would have it, neither shot struck, and in another second the tiger was on me and had thrown me down, his claws buried in my left shoulder. I had no particular sensation of fear, and I remember thinking quite calmly, as I lay on the ground, the tiger's hot breath coming against my face, "It's all up with me now." But at that moment my faithful little Mungo came to the rescue; he bit the tiger's tail so severely that the beast immediately released his hold and turned round to seize his new adversary.

Mungo, as sharp and wary as he was plucky, was off in the tall grass in an instant. The tiger followed, but the dog had the advantage over him, as it could run through the grass and under the brushwood at a pace which the other could not keep up with. But I knew that the tiger, disappointed of seizing Mungo, would soon be back again to attack his master; so I reloaded my gun and stood awaiting his return. In a short time he was before me once more, and again I levelled my gun as well as I could, considering the pain in my left shoulder, crippled him, and made him roll about in agony. Reloading as rapidly as possible, I went nearer to him, aimed very deliberately, and this time gave him his quietus. Scarcely had I done so before Mungo came bounding up to me, looking into my face, and whining as if with joy at seeing me safe.—Chambers's Journal.

THE UNEXPECTED.

She was the reigning belle!
Straightway in love I fell;
Potter! became the spell—
Too plain for making.
Then for a time I wooed—
For her sweet favor sued,
Till I'd my courage screwed
Up to the asking.

Out of the glare and heat,
Where to the music's beat
Tripped the uniting feet
Of the gay dancer,
Gently I led my fair
Partner, so demure,
Told her the whole, and there
Waited her answer.

Sweet was the flowers' perfume—
Weird the enshrouding gloom;
Sweet strains came faintly
Turning the smiles and blushed,
Murmured surprise and flushed,
Then, in the silence hushed,
Answered me quietly.

Doubtless you think she said,
When she had raised her head,
That which all lovers dread:
"She'd be my sister!"
That's where you've made a guess
Wrong, as you must confess;
For she said softly: "Yes!"
Yes! and I kissed her.

A CUTTING TONGUE.

"Shifless!"

Elihu Beaton repeated the word after his wife in a surprised and injured tone. He was leaning against the door-post of their little brown cottage at the end of the lane, a mile out on the "city road," from the village of Fairmount.

His heart had been full of contentment a moment before, as he mentally summed up the merits of the nearly ended year, and of wondering admiration as well, as he watched the crimson glory of the sunset above Mount Fair.

"I'm glad we built here, where we can see the sun set and rise over the dear old mountain," he had innocently remarked over his shoulder to his wife, who was "flying around" in the kitchen preparing a supper with a most appetizing smell. "It beats all how pretty that sky looks to-night, Hesper."

Mrs. Beaton had been washing that morning. That "goes without saying," because she was a New England woman—a "capable" woman, and because it was Monday. Equally, of course (in her household), there had been what she called a "boiled pot" prepared after breakfast and set well back on the great stove, as a good, hearty, sensible kind of a dinner, that would trouble no one to look after it, but would "cook itself."

Breakfast, the prospective dinner, and then Elihu being well out of her way, Mrs. Hesper turned the sleeves of her gray print dress over her well rounded arms, put on a large blue apron and a pair of rubbers, and bent over the wash-tub in such an energetic fashion, that at ten o'clock, every cloth was in its place on the line, at eleven the floors were mopped, and the house in apple pie order, at twelve, to a minute, Elihu's favorite dinner smoked upon the board, and his wife, in her clean afternoon dress, with shining hair, and with a pink ribbon in her collar, waited to catch the first glimpse of him, coming from the village, whither she had dispatched him to purchase groceries for the ensuing month.

She waited in vain till half past one o'clock, and then ate her own dinner, so full of wrath against the absent one, that she scarcely noticed how cold the vegetables had grown.

The afternoon wore on. Just as she put on the kettle for tea Elihu drove up the hill, and after attending to the comfort of his horse, entered the kitchen with his pockets and hands full of packages, and his mind full of the wondrous story of the old friend who had detained him so long.

"You used to know Jim Hunter as well as I did, when he was a boy, Hesper," he remarked, unheeding her black looks. "And you know how the neighbors all said he'd never come to any good, when he ran away from his step-father's house, and went to sea. He did come to good, though! He left his ship and went to the mines, and he has more money than I can count in a day. I should have asked him out here to see you, only he was in a hurry to catch the night train for New York, so I waited to see him off. A good fellow, Jim is. He deserves his luck, every bit of it."

Mrs. Hesper assented the fire, rattled out the table, flung on the cloth, and put down each piece of crockery needed with an emphasis, but kept her lips tightly closed while.

Elihu stole a sidelong glance that took in her heightened color and the "snap" of her black eyes, and discreetly moved himself to the doorstep, where, in contemplating the beauties of the sunset, he soon grew composed and happy again, actually forgetting his late spouse, after his first remark about the sunset, until that disagreeable word fell from her lips, sharp and distinct as the crack of a whip.

"Shifless! Who is shifless, Hesper?" he asked, after a lengthened pause. "Who? Why, you of course?" snapped his wife, who had just torn her new apron on the oven-door, and scalded her hand in the steam of the teakettle, and who, naturally, was disposed to blame her husband for both accidents. "What else are you?"

Elihu's mild blue eyes roved over the field that he had sowed, reaped and mowed that year, and ever since his beloved father's death.

"I do my work and keep my farm up, as well as the rest of my neighbors do."

"And go to the store and sit there all day long, to gossip with your Jim Hunters, while I am waiting here for forty things, and obliged to get your dinner twice over for you in one day," rejoined Hesper, setting the warmed up "boiled dish" on the table with a bang that thoroughly testified to the strength of the yellow "nappy" that held it.

"And standing there, now, moonlight about the sunset, when any fool might know that water is wanted from the well before tea."

"I'll bring the water, Hesper."

It was the "soft answer," although it did not "turn away the wrath," so far as words were concerned. But the tone in which it was spoken betrayed rising temper on Mr. Beaton's part.

He took the pail, turned the east corner

of the house, as Hesper saw him no more. As he walked along, with his eyes upon the ground, a strange process was going on in Elihu Beaton's mind. During the ten years of his married life he had endured Hesper's continual "nagging" as a matter of course, with no attempt at rebellion.

But, on this evening his heart was softened—full of old memories, old dreams, and hopes of plans, long since laid aside and well-nigh forgotten, till the four hours' conversation with the friend of those early days had recalled them, and with them the spirit of enthusiastic, adventurous daring that had lent them their beauty and their life.

Never had this one discord of his otherwise prosperous and happy life so jarred upon him as now.

"If I was to go away, as Hunter's brother has gone, and come back rich, she would have a higher opinion of me," he thought, glancing back once more at the sunset light upon his home.

He set the tin pail down softly by the well-room door, and strode away across the fields toward the distant town. Half an hour later his wife went forth, impatiently, to call him in to eat. An hour later, she was wildly calling his name, as she, with her hastily summoned neighbors, sought him up and down the farm. But search and seek as she might, with the late repentant born of love and tears, it was in vain. He was gone! No one in Fairmount knew less or more than that Elihu Beaton from that autumn afternoon.

Two years passed slowly by. The good people of Fairmount resembled every other "people" in one respect, and rarely paid any great or long-sustained attention to the troubles of their neighbors, so long as their own affairs remained in a healthful prosperous state.

Consequently the place which Elihu Beaton had filled in the small community was soon filled up. Everyone grew used to thinking of him as they thought of the dead. No one expected that the mystery of his fate would ever be unraveled—in this world at least.

No one except his wife. His wife, who was already designated in the minds of many, if not in their actual thoughts, as "The Widow Beaton."

Elihu's disappearance was not to her the profound mystery that it was to all others. They had lived much to themselves, being on a by-road, at some distance from the village, and on the rare occasions when they had visitors, or "extra hands," Mrs. Beaton had treated her husband with all due respect.

She knew, and she only, how often she had tried the patient, kindly man to the last verge of endurance by her acrid tongue. Over and over again, even in those days, she had risen, of a bright, sunny morning, resolving not to give way, that day, to her temper. And when the fire would not draw, or the kettle would boil over, the biscuit would burn in the oven, or her pet cat would get under her feet as she was hurrying from the table to the stove, up the angry words would bubble, and Elihu, being the only human creature at hand, would pay the penalty of the "general depravity of inanimate things," till he would fairly rush out of the house, sometimes uttering a loud protest that "it did beat all why a woman should wait to act so," a protest which would render her life ten times more angry than before, until the time came for her wrath to die naturally away.

Yes, she would lay her hand upon her heart, and say that she had often tried, honestly, in the old days, to wear a pleasant face and speak in a pleasant tone, yet how signally she had failed. And, at the last, she had fairly driven him from the home he loved so well. Driven him, by that one stinging word, that false word, which she ought to have known that he could not, and would not bear.

"Shifless! I must have been quite beside myself to say it," she thought, as she stood in the open kitchen door, one December evening, looking toward the sunset on the distant hill. "There never was a better worker than Elihu in Fairmount. I'm sure this farm shows the difference since he left it, and no one does by me as she agree when they take the land. Well, I've only myself to blame for it all! Oh, how sorry I am! O Elihu, Elihu! where in the wide world are you? Oh, if you could only come home and forgive me, how happy I should be!"

A sob choked her, and she raised her apron to her eyes. Looking across those snow covered meadow lands toward the hills, she had seen Deacon George's gray horse and green sleigh turn in at the gate of the George homestead, had seen the end door of the great red house fly open, letting out the comfortable glow and light of an open fire upon the kitchen hearth, had seen the deacon's wife, fair and rosy in her healthful middle age, while the "bound boy" led the fat, gray horse away to a good supper in his warm stable.

Her own kitchen was now rosy with the light of the flames from two well seasoned logs upon the hearth, and the tea-table was spread with good things for her lonely tea, yet she could not turn from the spectacle of her neighbor's household comfort, although she gazed upon it through her tears.

Suddenly the gray cat and the black cat, who had been basking side by side in the heat upon the hearth, rushed to the door with the same peculiar cry of welcome, with which, as kittens, they had been wont to greet their master's coming two years ago.

A step coming around the east corner of the house as if from the well-room, sounded on the snow. A voice with an odd tremble and quaver in it, said:

"I've brought the water for tea, Hesper."

Looking round with a pale, scared face, as if she expected to find a ghost behind her, Mrs. Beaton saw her husband, ruddy, brown and bearded, with a bright new tin pail filled with water, in his hand.

"Say no more about it, Hesper, dear!" exclaimed Elihu, when his wife threw her arms around his neck with a sobbing prayer to be forgiven. "I was quite as much in the wrong as you were, that time, at least, for I went away proud and angry, and not caring how much you might suffer when you could not find the least trace of me about the farm. How did I go, do you ask? Walked over to Sointon, across lots, and then by train to New York, and on to Call-

fornia, like a fool as I was! I grew homesick enough long before I got there, but my pride wouldn't let me come back till I had made my fortune at the mines where Hunter's brother worked. And I've done it, Hesper—at least it will be a fortune in a place like Fairmount, and there's nothing in reason that you may set your heart on, in future, that I cannot afford to give you."

"O Elihu, don't be so good!" sobbed his wife. "I don't deserve it, when I drove you away from home."

"Not a word of that, I insist, my dear," said Elihu, as he drew her into the house and closed the door. "We were two fools, and we know it now; and we shall be wise enough in the future, I'm sure, to make ourselves as happy together as God intended us to be when He gave us so many blessings. Now dry your eyes, Hesper, and let me have a real homelike, comfortable supper with you once more. Bless me! How bright and cozy, and pleasant it does look to be sure! And here are these poor little things actually remembering me—glad to see me! Just look at them, Hesper—how they lick my hand!" said the farmer bending down, with an unsteady laugh, over the two cats, as they stood on their hind feet to caress him.

And Mrs. Hesper, glancing at the group, saw plainly two large sparkling tears fall from her husband's eyes, as he bent above his pets, and looked into the joyous, welcoming fire—Margaret Blount in Ballou's Magazine.

Some Common Insects.

From a very interesting paper on the above subject in the Country Gentleman we take the following:

The insect world is so large and varied that few persons have more than a vague idea of what animals are included in it. It is very common to hear animals spoken of as insects, which are in no way related to them; thus the coral polyps, by which the immense coral islands are built up, are often spoken of as insects, though they belong to an entirely different branch of the animal kingdom. A few of the general characteristics of insects will be named, such as will enable any one to tell of a given animal whether it is an insect or not.

As to the general structure of the body, the characteristic feature is that it consists of three distinct parts. Indeed, it is from this fact that the insects are so named, the word freely translated meaning out into; the body being cut into these three parts. The first part is always easily distinguished as the head; the second part, which bears the legs (of which there are always three pairs) and the wings (of which there are usually two pairs) is called the thorax; the third, or hinder part, is the abdomen. In general, the easiest way to tell an insect from any other kind of animal is to notice whether there are three pairs of legs attached to the middle segment of the body. By this method the larvae of insects can also be easily distinguished from worms. In the larval, or worm stage of development, insects have quite a number of pairs of legs, but the three pairs of true legs are always much larger than the others and are near the head end of the body.

It is not possible to distinguish insects by their wings for not all insects have them, the working ants and the spring-tails being common examples. It is an interesting point that the spring-tails, by means of the organ which give the name, are able to make high leaps into the air, thus enjoying, to some extent, the advantage of flight possessed by the winged insects. It is as if nature sought, by a special contrivance, to make good the loss which they undergo by not having wings.

In the winged insects there may be one or two pairs present. The house-fly and the mosquito are examples of insects having only one pair of wings. In the latter animal, however, a second pair, in a rudimentary form, is present, forming balancers by which it is able to poise in the air. In the latter animal, however, a second pair, in a rudimentary form, is present, forming balancers by which it is able to poise in the air.

The wings of insects are to be regarded merely as out-foldings of the skin to form organs for locomotion in the air. Running through the wings are branching hollow tubes commonly called "veins." These tubes are connected with others like them that ramify the whole body of the insect, and perform the function of lungs, for they are filled with air from outside the body, and in this way an exchange of gases takes place between the blood of the insect and the air in the tubes. Along the sides of the body of an insect are the openings of the air tubes; they are called spiracles and serve to let air in and out. The passage of the air in and out is effected by muscular contractions. If one holds a beetle, as a June beetle, in the hand, these contractions can be seen. No doubt insects regulate their flight, whether upward or downward, by the quantity of air admitted into their body.

The eyes of insects are situated on the head segment of the body and, as is well known, are usually compound. The compound eyes, by presenting surfaces or facets in many directions, enable the insect to see both forward and sideways without moving the eye as a whole, which indeed is impossible, the eye having no motor muscles.

Many insects have a pair of antennae or feeling organs attached to the head. Ants are said to convey intelligence, as of alarm, by touching one another with their feelers. It is thus seen that the higher insects have organs of touch, sight and hearing. We know also that they have organs analogous to those of taste and smell in the higher animals, since they readily discriminate between different kinds of food, while thus possessing the five senses, it is,

of course, highly probable that their perception of external objects is, on the whole, far more imperfect than that of the highest animals. A bee let loose in a room flies toward the window being able to appreciate the light, but it cannot discern the glass of the window since it strikes heavily against it in its flight. And with respect to the sense of hearing it is probable they hear chiefly only those sounds made by other insects of their kind. It is doubtful whether a bee would hear notes struck upon a piano.

It is true that some insects possess remarkable powers of intelligence. Yet it is probable that our disposition is to ascribe to them a higher mental life than they possess. Most if not all of their acts of intelligence belong to the class termed instinctive—that is, acts performed without reasoning. It seems likely that we often, in observing their ways, ascribe to them powers too much like our own. We think their proceedings are carried on much as we should do under seeming like circumstances; but it is likely their activities are directed by a much lower sort of intellectual life than that which governs our own. If we think of them as being governed by promptings of a blind inward force rather than by acts of reason and will, we shall probably be not far from the truth.

VARIETIES.

A CERTAIN KANSAS college professor who enjoys a joke on himself just as heartily as he does on anybody else, once upon a time delivered a lecture in a Kansas town. As is the custom on such occasions, the principal choir of the place furnished music. Before the delivery of the lecture the choir melodiously inquired: "What shall the Harvest Be?" and after listening to the lecture came forward and sang, "Nothing But Leaves."

About the year 1840 a duel was fought by two Philadelphia men, James Schot, Jr., and Edward Willing, in which both were hit. Some verses written on the matter ran thus: Schot and Willing did engage In duel fierce and hot; Willing shot Willing, and Willing shot Schot. The shot Schot shot dead Willing quite A spectacle to see; While Willing's willing shot went right Through Schot's anatomy.

LOVERS are prone to self-depreciation. Said he tenderly as they sat looking at the stars:

"I do not understand what you see in me that you love me."

"That's what everybody says," gurgled the ingenious maiden.

Then the silence became so deep that you could hear the stars twinkling.

"How many rooms are in your new house, my dear?" inquired a good old-fashioned mother of her daughter, who had just acquired a West Side home. "Ten apartments—reception-room, drawing-room, dining-room, library, parlour, and four chambers, besides the attic and furnace room," was the reply. "Dear me, how your father gets things mixed!" exclaimed the old lady. "He told me after he bought the house that there was a parlor, sitting-room, dining-room, parlor, kitchen, bath-room, four bed rooms, a cellar and a garret."

TEACHING A WIFE SENSE.—Wife (counting over her change after making a purchase)—I guess he's given me the wrong change. Husband (savage)—I thought so, I thought so; that's what a hard-earned money goes for. Trust a woman to get fooled. Go back to the counter and get it made right at once. (Wife returns to the counter and hands the clerk a \$2 bill). Husband—Why, what have you been doing? Wife—Making the change right. He gave me \$2 too much. Husband (more savage than ever)—Well, by jings, you are an idiot.—Boston Courier.

IRATE PATRIMONY.—See, here, I sent your paper an advertisement yesterday offering to end money on good security, and it came out in the paper "without security." I have been just deluged with applications; over 1,000 letters in to-day's mail. Able Editor—Too bad, too bad. I won't change you any thing for that, of course, and I will see that your advertisement is correctly printed hereafter. Patron—Thank you; good morning. Able Editor (to assistant)—John, make an editorial reference to the fact that one advertiser in yesterday's paper brought in 1,000 answers.

The late Major Mordcau, of North Carolina, during an audience with the Car of Peace, of a somewhat informal and conversational nature, had used the address "Monsieur," having carried the interview so far forward in French. Turning to General McClellan, who stood near by, Major Mordcau suddenly exclaimed, with a mighty and deep Carolina oath: "Hail I called the fellow mister." The Car thereupon smiled, bowed, and said, with a civility that entered the Major's bones like ice: "I speak English quite well enough, sir, to continue our interview in that language, if you prefer it!"

One day a week or two ago a lady from Philadelphia brought a letter of introduction to President Cleveland that insured her a private interview. She was accompanied by a bright little son, aged six years. The President received them in his office and sat by his desk and talked in his friendly way with his visitor. Presently the mother noticed her boy frowning and sulking in his chair. She whispered an inquiry as to the cause of his apparent trouble. "Why, mamma, he isn't sitting on that chair, and he has no crown on his head. He is only a man."

RIVALRY AT THE CHURCH FAIR.—Miss Clara (discussing the church fair)—We are doing splendidly at my table. Last evening a gentleman gave me a ten-dollar bill to pay for a two-dollar tidy, and would only accept five dollars in change. Wasn't that nice in him? Miss Ethel (with a little cough)—Very. Last evening a gentleman gave me a twenty-dollar bill to pay for a trifle, and went off without waiting for any change at all. Miss Clara (with some style of cough)—Yes. I suppose it was worth that to him to get away.

This husband of this lady in Oakland has a theory. I never knew a husband theorize on the subject. He was always quite sure. "Now," he said to his wife one day, "I don't like your appearing ignorant before the child, never do. It is not well to have an answer to anything the child asks. If you say 'I don't know' you simply kill your child's faith in you. She'll lose her respect for you right away. It does not matter what she asks, you must always have an answer, and a positive answer, for her." And he went down town and bought her one of those box alphabets that lie all over the floor and fall under the sofa and get into the crack of the door and finally render it unsafe to walk about anywhere in the house. She sat down and selected the word "hen" to illustrate the

meaning and value of the alphabet. She looked at the three letters, lying on the carpet, and to the guileless father thus she spoke:

"Papa, which did God make first, the hen or the egg?"

PRECISE AND PRACTICE.—Little Eunice, between three and four years old, had to be punished one day, her mother prefaceing the operation with the remark that she was sorry to do it; she only did it because she loved her so much, etc.

At night, after the little girl was in bed, she called her mother to her, threw her arms around her neck and said:

"Mamma, we love one another, don't we?"

"Yes, dear."

"You don't like to punish me, do you?"

"No, I do not."

"You would rather punish your own self, wouldn't you, mamma?"

"Yes."

"Well, then, mamma, I wish you would."

"MARTHA," asked a long-eyed man, emerging from a dark and lonely closet with a hurried tread and an ill-dissembled air of composure, "what is the matter with you? You are looking as if you were in a state of chaotic anxiety. 'Martha, what is it that high-shouldered, square black bottle with a short neck, on the third shelf?' 'Kerosene! kerosene for grandpa's rheumatism,' replied the good wife; 'why?' 'Oh, nothing,' he answered, carelessly, as one who had just swallowed an earthquake in the dark. 'Nothing! it wasn't labelled, and I thought it might be something dangerous.' They said no more, but in a down-drawn drug store a man of a certain countenance sat a long time that night eating raw quinine out of a spoon with a spoon, trying to get a strange, foreign-looking taste out of his mouth, which, he said, had crept in there unawares.

JUSTICE LAMAR'S absent-mindedness has been a prolific theme with newspaper writers at the national capital. The last story at Justice Lamar's expense was that wherein he was described as vainly attempting to drop a letter in a fire-alarm box. A new story is told in circulation to the effect that a few days ago Mrs. Lamar noticed the Judge standing a much longer time than usual before his dressing mirror. As he is not generally inclined to self-contemplation, save in the philosophical sense, she naturally asked what was the trouble.

"Why, my dear, I am trying to tie my cravat, and I can't imagine what is the matter with it. It doesn't seem to go just right for some reason."

And it didn't, for the brilliant Southerner had somehow got hold of an umbrella cover and was placidly, if not altogether successfully, endeavoring to make it do duty as a necktie.

SWEET IS REVENGE.—"It's just as well that you did not go, John," said a wife to her husband who had returned from the theatre.

"Why so?"

"There were two hats in front of us and we could not see the stage."

"Then you were miserable all the evening?"

"Not exactly. I know something about millinery, you know."

"How did that help you?"

"Well, they were cheap hats and I took them to pieces, described the materials of which they were made to my cousin, the price of the frames, the ribbons, the feathers, and they were such hats as milliners sold to nurse maids, cooks, etc. You should have seen the wearers' faces burning."

"Oh! I wish I had been there."

"So the wearers didn't see any more of the stage than I did."

"Why not?"

"Because they were too busy listening to me. I have not enjoyed myself so much for a long time."

MR. O'CONNOR POWER, in the course of a speech at Winthrop on Thursday last said:

"I heard a good story on Sunday last, which illustrates the class of ready, enterprising people who are sure to get on in Manitoba. A gentleman coming from England wanted to take out to a nephew, a settled here a married couple to work on his farm. He advertised, and immediately a good-looking fellow came to see him about work."

"Are you married?" asked the gentleman when the man presented himself.

"No," answered the latter.

"But I want a married man and his wife," said the gentleman.

"Well," said the man, "I am not married, but I can get married."

"But then," continued the gentleman, "I want a married man whose wife is a cook."

"Well," replied the man, "I can marry a cook."

"And I am going away very soon, at the latest in three weeks from now," added the gentleman.

"Oh, that's all right," said the man, "I can get well married in that time."

"And he did. He not only married, but he married a cook, and he came out here, and has found matrimony and Manitoba combined a great success."

Chaff.

Merit will tell; even in strawberry baskets the best rise to the top.

The mosquito bar is the only bar that gets a license without application.

It must be a very good brass-band that can play all the airs a drum-major puts on.

Jinks has been out the night before, and is late at his desk. Employer (sternly)—Well, Jinks! Jinks—Not very, sir.

A rejected lover sent a red flag to the lady asking her to wear it as a signal, so that other fellows might not suffer as he did.

Bill Nye has refused to buy one of his own books from a book agent. Mr. Nye seems to be a gentleman of excellent literary taste.

Fisherman (at the dock to divide)—Go 'way! Dude—'Hill what's that? Fisherman—Go 'way! You're trouters are so loud that they frighten the fish.

An etiquette book says: "Select your guests with a sense of fitness." We suppose that means not to invite a fat man to a slim dinner.

Fortunate Greeks.—Teacher—What advantage had the old Greeks over us, Hans? Hans (drawing a long breath)—They did not have to learn Greek!

An author was recently asked for a list of the best hundred books. With calm courtesy he replied that he had not yet written quite a hundred.

An Irishman wrote home to his friends over the briny that in this blessed land everybody is so honest a reward has to be offered for thieves.

The people of Siberia buy their milk from Russia.

In that locality the enterprising and thrifty milkman is occasionally caught outting local and whitewashing it.

An Alaska Indian sentenced to prison for ninety-nine years for murder wants to know if the government is going to keep him alive long enough to serve the whole term.

The pink tea has now a dangerous rival in the yellow breakfast. The blue luncheon, however, will hold its own with the downtown husbands until business picks up.

Edison's Agent—Wouldn't you like to buy a photograph? It will store up everything you say and repeat it to you. Want one? Omaha Man—No; got a wife.

When our choir sings "I Would Not Live Anywhere," every man in the congregation, with

one hand on his hat and the other vaguely feeling for his umbrella, shouts in chorus, "I ask not to stay!"

Editor's Young Wife—My dear, you must pardon me for coming down in a wrapper this morning. Editor—Don't mention it, my love. Some of our most valuable exchanges come to us in wrappers.

A story is going the rounds of the press about a man who, upon waking up one morning and finding thieves had stolen his entire saw mill, thanked heaven that the robbers had left his water-power.

We are told that the Siberian railroad will connect Napierk, Oita, Irkutsk, Tomsk, Tobolsk and Khatanga. We think that if these names were connected and had a handle adjusted to the rear and they would make a first-class meat-saw.

Miss Gladys—You appeared abruptly upon your errand a while ago. You must not come so suddenly into the room when Mr. Smithers is spending the evening with me. Bridget—Sudden! And it's sudden ye call it, and me at the hay-hole a full three-quarters of an hour.

A young Irishman on applying to an old farmer for a job, was asked: "What brings so many of you Irishmen over here?" "Well, sir, we lost a part of the Lord's Prayer in Orland, and come here to find it. Fanny—'What part might that be?' Irishman—'Our daily bread.'"

Confirmed Bachelor—How time does fly, Miss Seaside! What is ten years ago to you? Miss Seaside (who wishes she hadn't)—So long as that! I was young and foolish then, Mr. Smith. Confirmed Bachelor—But we are both older and wiser now, n'est-ce pas?

Old Lady—Do you actually mean it, Mr. Sharpley, that the boats from New York to Boston go by South's Sharpley—Positive fact, madam, no question about it. Old Lady—Goodness gracious! what a queer motive power!

